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ORIGINAL ARTICLES.

TREATMENT OF EPILEPSY.

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Notwithstanding the flood of new light thrown on epilepsy by the more favorable surroundings of the patient, the better facilities for his observation and the opportunities for a more scientific study of his condition which has come with the colony care of these unfortunates, epilepsy yet is as it was since the days of Hypocrates, the opprobrium medicorum of the general practitioner. Such being the case, it is with no little hesitation that I have decided to present this paper on a treatment which I fear many have considered barren in results. That such treatment is often barren where it should be successful must be my apology. The writer believes that in the judicious treatment of epilepsy the physician can accomplish results more satisfactory to the patient than in any chronic disease with which the neurologist has to deal. That the problems involved in such a result are not understood by all, seems certain. It is generally known and undisputed that bromine in its many combinations is the sheet anchor of epilepsy's successful treatment. Too many physicians, however, seem to think that a patient with epilepsy can get all the benefit that is his due by giving him a prescription containing bromide of potash and letting him pass out of notice. How many patients have been made worse rather than better by such a proceeding? In how many cases has the patient been reduced to a physical and mental wreck, not by his disease, but by his treatment? It is well known that a proper dose of bromide will control epileptic seizures. It seems less known that too large a dose can aggravate them. Far too few physicians realize that bromine is a very edged tool, capable of good if pushed just far enough, just as capable of evil if allowed to go too far, and, furthermore, that to accomplish the good it must often be pushed right up to the limit, beyond which harm would ensue; that this limit is a varying one, depending on many and changing elements in the patient's condition, which must be kept constantly in mind.

But in considering some of the problems involved in epilepsy's treat-

ment certain statements as to the nature of epilepsy must be made. And, first, let me say that all symptoms spring from the brain cortex. All are due to perverted action here. In estimating the relationship between cause and effect, between the over-irritable brain tissue and the irritating causes that are attacking it, such as toxines, local irritations, cerebral tumors, the sympathetic effect of such peripheral irritations as a tight prepuce or diseased ovary, we must remember that an ounce of over-irritability goes farther here in being responsible for epilepsy than a pound of the various irritants. That, according to Gower's dramatic illustration, the irritant is the spark that falls on a pile of sand or on a pile of gunpowder. But on what, then, does the irritability of the cortex depend? Largely on heredity and, still more frequently, on slight vascular injuries that occur at or soon after birth. The epilepsies that have followed the grosser vascular cerebral diseases of infancy, such as the cerebral palsies, have been known and recognized for a long time, but it has been only recently that the connection between epilepsy and the spasms of infancy has been understood in its true light. These spasms, usually occurring during the course of various infectious fevers, are often not a part of the epilepsy that the child develops later in life, but are a cause of it. Such spasms are often due to a more or less severe menengo eucephalitis, which *occasionally* leaves gross brain lesions in its train, but more frequently is recovered from, leaving in its wake nothing more than a slight cortical sclerosis, and just as partial or so-called Jacksonian epilepsy starts from a single scar in the motor region, following some gross injury, so general epilepsy comes as a result of these many small sclerosed areas distributed over various parts of the cortex. But be the cause what it may, the condition to combat is this irritability of the cortex. Now, this irritability is always increased and its control rendered more difficult if, through a repetition of epileptic attacks the brain cortex forms a habit of explosive discharge. The fact that after a nerve impulse has once passed along a certain tract in the brain it can pass that way the next time more readily is axiomatic in brain physiology. It is the foundation of memory, and lies at the very root of all education. What holds true for physiological processes probably holds much more true for those violent discharges of nerve energy which constitute the epileptic attack, for not only do they in a physiological sense more deeply impress the nerve cells through which they pass, but they leave in their wake minute areas of organic change which act as future points of lessened stability. And thus perverted habit and structural impairment go hand in hand, each attack leaving its slight but ineffaceble mark on that most delicate of all tissues, the brain cortex. The time will come sooner or later when the influence of repeated paroxysms will outweigh in importance the primary causes that produced them. Let us illustrate: A patient receives a blow on the head causing injury to a small area of the motor cortex for the right arm. As a result he develops a Jacksonian epileptic attack. The result of this condition, if he is untreated, will probably be that sooner

or later he develops a second attack, but this second attack will involve more muscles than the first, will be more severe. Subsequent attacks will come and cause the spasm to spread from the arm area to that for the face and leg, and, finally, the nerve storm, gathering intensity with its repetition, involves so much of the cortex that consciousness is blotted out, the spasms involve the entire body, and for all practical purposes his epilepsy is as general and is now as much beyond relief by treatment of the local cause as if it had been general from the start. Now, what holds true for epilepsy starting from a single focus is largely so for what we call general epilepsy starting from multiple foci of irritability. And right here is the key note to treatment. If our patient with local epilepsy had been treated promptly—if the offending focus had been removed and treatment looking to a lowering of cortical over-irritability had been instituted at once—the chances of a complete cure would have been great. So, in many cases of general epilepsy, the multiple changes in the cortex leading to its over-irritability finally reach a stage where an epileptic attack occurs. If *at once* treatment is instituted, if means are taken to lessen the irritants affecting the cortex, and if measures are employed to lessen the irritability of the brain, there is good chance of our being able to hold this irritability below the level of explosive discharge until the brain has regained its stability. And when we remember that for an attack to occur there must be an over-balancement of the stability of the nerve tissues by irritants probably largely removable; that at first the balance is almost evenly swung; that after a time the brain may readjust itself if given a chance, we readily see the hope of treatment lies in stopping the attacks.

As has been said, bromine, with proper adjuncts, in the many cases will accomplish this result. And in cases that have become too inveterate for cure it will obtain a benefit for the patient fully repaying him for all the sacrifices to which he is subjected.

It is my object to present to this society some methods that I have used in administering the bromides in connection with my results obtained in thirty-five patients and extending back in some cases six years.

And first as to methods: The object in view is to keep enough bromine in the patient's tissues to be just short of their therapeutic saturation. When over saturation occurs, toxic symptoms develop. There is a narrow margin between saturation and an amount that will control the disease. A variation in either direction means renewed attacks. Success demands that one keep accurately within this margin. In adapting bromine to this end, it is well to remember that the average effect of several days' dosage must be considered rather than the influence of any single dose, the remedy forming its therapeutic unions slowly and being eliminated more slowly still.

The clinical picture of a patient under the full therapeutic influence of bromine is about as follows: He appears slightly listless, the pupil is somewhat dilated. Unless the dose has been pushed too far or the bowels neglected, the tongue is not coated

nor the breath foul. The patient sleeps unusally sound at night and, when unoccupied, is apt to dose during the day. The pharyngeal reflex may or may not be diminished; the same holds true for the knee jerk. Children will occasionally wet the bed. Standing with eyes closed and feet together, the patient will often slightly sway. While not seriously inconvenienced, he is a trifle too listless for his comfort. There would be danger were he long in this condition that he would take insufficient exercise, and that this, or an attack of constipation, would lessen his elimination of bromine and permit toxic accumulation. He would, at all events, have to be constantly watched. And yet that, at stated intervals, he attains a dose where the signs of full bromine effect are plain, is essential to the proper control of the disease. The method employed by the writer to attain this control, while sparing the patient the inconvenience and dangers of being always on the brink of bromine over-saturation, is that employed by the French school and called by them the *dose suffisante*. This consists in administering a daily dose of bromide of soda for one week, which one feels quite sure is less than enough to cause over-saturation. The patient is seen once a week and the dose is increased one gramme each week until the symptoms indicating full bromine effect are produced. At the end of this week the patient's daily dose is reduced two grammes. During this second week the bromine that produced the full effect is being eliminated from the system, and what remains of it allows the lessened dose to hold the patient well within the margin of safety, while, at the same time, giving him relief from the listlessness to which he was subjected during the latter part of the previous week. He is now alert, energetic and usually much clearer mentally than he was while taking no bromide at all. The pupils are one millimeter or one and a half millimeters smaller. The next week the dose is increased by one gramme, for now most of the bromine taken on his full dose week has left the system and a larger dose is required to hold him in a safe condition. He continues alert and completely himself during this week, and the third week he is replaced on his full dose. At the end of this week his pupils should be measured, and if they are dilated and his general condition indicates full dosage, his next three weeks dosage is to be repeated. If neither pupils nor general condition gives signs of full dosage, the following week his daily dose should be increased by one more gramme. This dose will almost certainly give the above-described signs of therapeutic saturation, and it, instead of the previous dose, should be considered his high week's dose. He needs now to be seen but once in three weeks, that is at the end of every third week, or high dose, when it can be seen whether his dose is sufficient or needs changing. It will be found that after the full dose has been attained its influence on the attacks will be noticeable almost at once. In the few cases where this is not so, the writer believes it is due to an insufficient or improper therapeutic union of the bromide with the nerve cells involved in the attack and the form of administration is changed.

Thus, if the patient is taking the bromide of soda, a change is made to the bromide of potash. This failing to control the attacks, after signs of full dosage are established, the patient is put on the mixed bromides of soda and magnesium, and a teaspoonful of tincture of passiflora is given twice daily. By one of these three changes, practically every case can be very satisfactorily controlled, provided the symptoms indicating therapeutic saturation are attained with a reasonably small dose of bromine. Occasionally, however, a patient will be met who requires such large amounts of bromine to produce saturation that his digestion and nutrition are seriously impaired and very troublesome acne produced. In these cases great satisfaction is gotten from a resort to the hypochlorinization or so-called salt starvation method, my experiences with which are reported in a previous paper.

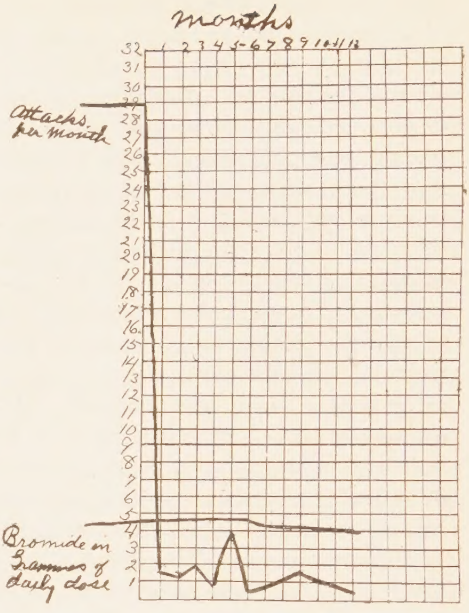
A few additional details as to the practical carrying out of the treatment may not be amiss. First, it is almost essential that some one other than the patient is to oversee the carrying out the treatment. Choose some one devoted to the patient's interests and charge that person with giving the medicine, enforcing the directions as to diet and hygiene, and with keeping a written account of all the attacks and symptoms. Furnish him with an accurately marked glass, measuring drams, and if a 25 per cent. solution of the bromide be used a dram will represent a gramme of salt. With sodium bromide it is well to be sure the salt, which is very hygroscopic, has not absorbed too much water before it is weighed out, thus, of course, weakening its bromine content. At the commencement of the treatment it must be clearly understood that, for any permanent results to be attained, the treatment must be followed implicitly for three years. That this means taking medicine every day for that time and submitting absolutely to directions. I have generally found it much better to change the dose on Sunday of each week, seeing the patient on the Saturday that completes the dose, the effects of which I wish to observe.

As a rule I find it best to divide the daily dose in two portions, giving one after breakfast and one at bed time, giving it always well diluted. Occasionally with women, the attacks occur principally at the time of the menses, it is then well to continue the high does during two weeks and causing this dose to coincide with the time of menstruation.

In directing the diet and hygiene the individualties of the patient must be largely considered. To all patients it is recommended that they take a warm soap tub bath twice a week. That they take some out-of-door exercise, weather permitting, every day, and, where possible, some light outdoor occupation, safe for an epilepic, is enjoined. Indulgence in any alcoholic stimulants is usually to be forbidden. This prohibition applies also to tobacco and, in the writer's opinion, to tea and coffee. Foods that are apt to cause fermentation are to be discriminated against. Deserts, containing cane sugar, should be forbidden, as should all other forms of sweets, except one teaspoonful of sugar at a meal, used as the patient chooses. The patient invariably should

live on plain, digestible food. Children especially should avoid substances liable to mechanically over-irritate the digestive tract, such as grape skins. Nuts seem to be especially injurious and should be forbidden. The question of meats is an important one, but varies with the individual. Many epileptics eat too much, especially too much meat. With these cases eating between meals should be forbidden, and they should have meat or eggs but twice daily, and should never be helped to meat twice at any meal. Less frequently epileptics eat too little. In the few cases that increased exercise will not correct, bitter tonics are of use. In these cases a fourth meal is often advisable. Probably the best single article of the epileptic's diet is milk, of which he is to take two or three glasses daily. The bowels should be carefully watched. Attacks of constipation, with coated tongue, should be promptly met by broken doses of calomel followed by a saline. Where there is a constant tendency to intestinal autotoxæmia, with mushy, unformed stools, I have found much benefit from bran and graham gems, baked from equal parts of bran and graham flour. If made fairly moist and eaten hot, with plenty of butter, they are very palatable.

I have embodied in a chart my results, averaging it for all the cases reported. The average number of major



attacks per month that had been present for six months before treatment is shown at the commencement of the seizure line, and the average number per month while under treatment for the first year is shown in this line's continuation. All spells with spasm or falling are counted as major attacks. The average amount of bromide is also shown on the chart. A chart showing treatment in a severe case, which is not readily controlled by ordinary admistration of bromide, is given. The seizures and bromide are charted by the week. The next year's treatment is much more satisfactory in this case under salt starvation.

SCARLET FEVER.

By Robert D. Haire, M. D., of Clinton, Missouri.

Scarlet fever is perhaps more often attended with diagnostic difficulty than any of the acute infectious diseases, owing to its many and varied types, which range from the mildest form, "scarlatina simplex" to the most malignant "scarlatina maligna." Between these extremes, an almost endless variation from the normal, shades from one to another so gradually that any sharp differentiation into groups is impossible. To this fact is also due the difficulty in distinguishing it from other contagious and eruptive fevers, as well as the non-infectious rashes caused by such drugs as quinine, belladonna, chloral and the coal tar derivatives.

From personal experience I have found the following points of diagnostic value:

Rashes, caused by drugs, are misleading, from the fact that they are ushered in by fever and appear upon the face and other locations usually characteristic of scarlet fever, so, also, are the toxic erythemata, which occur in the course of septic infection, but such cases do not present the enlargement of glands typical of scarlet fever.

In rubeola, rubella and the various forms of erythemata, if the cases are typical the diagnosis will be easily made.

The characteristic symptoms of scarlet fever are the abrupt onset, high temperature, sore throat and vomiting, with the early appearance of a rash made up of minute, brightly injected puncta, slightly elevated and closely studded together, forming a uniform or finely mottled surface, which frequently becomes confluent.

In measles the rash appears first upon the face, then spreads slowly over the body, but it is always "measley" and never confluent.

In the irregular cases, however, the diagnosis must rest upon the other symptoms, particularly those constitutional, as too much reliance upon the rash alone is always hazardous. Even desquamation is of only relative value, since dermatologists recognize the fact that it will follow any scarlatiniform erythemata which has been characterized by sufficient inflammatory change in the skin.

In this connection, however, I would impress upon you two points characteristic only of scarlet fever, viz.: The tendency of the epidermis to split just beneath the free border of the nail, then peeling off down the finger, and the persistance of the desquamation, which continues often from five to six weeks.

It is the mild form of scarlet fever which most puzzles the physician, those cases in which the fever is insignificant, the throat symptoms, such as to demand little or no attention, and even the rash so slight that it may be easily classed among the minor ailments. It is to the various gradations of this class that a recent epidemic of eighteen months' duration visited our city.

During that period there were in all 110 cases reported to the health officer. Of this number there were five deaths, two due to diphtheritic complications, two to nephritis, and one,

cause unknown. The epidemic displayed many phases of the disease—some were confined to their beds but a short time, or not at all, and doubtless many were never attended by a physician. The majority of cases were of moderate severity, the average period of incubation being from two to six days, while a number of cases were noted where one member of a family, constantly exposed, did not contract the disease for two weeks.

The invasion was abrupt, the average temperature ranging from 100° to 103° F., accompanied by vomiting and sore throat; in about twenty-four hours the rash appeared first upon the neck and chest, then spreading over the entire body. The highest temperature, rarely exceeding 104° F., was coincident with the full eruption, decreasing correspondingly as the rash faded. In many cases there was slight swelling of the tonsils, fauces and uvula, accompanied by pain upon swallowing.

While the fever was at its highest the patients were restless, thirsty and sometimes slightly delirious; nearly all showed marked prostration and anemia. Otitis in a mild form occurred in a number of cases, indicated by earache and discharge, but the most pronounced sequelæ of the epidemic was scarlatinal rheumatism, affecting principally the joints of the hands and feet for a few days, and a mild form of post-scarlatinal nephritis.

Since there is no specific for scarlet fever, my treatment consists in averting complications and trying to render them less severe when they do occur. Mild cases require little or no medication, as a rule they receive too much. The patient should be kept in bed and given a light diet. Milk is always to be recommended, either plain or peptonized, followed by broth, eggs and other easily digested food as improvement justifies, care being constantly exercised not to overtax the stomach, either by the quantity or quality of food.

The bowels should be first moved mildly by small doses of calomel and later kept open by enemata rather than by cathartics. Water should be given frequently and freely because of its beneficial effects upon both kidneys and bowels. In fact, it should be recognized as one of the chief therapeutic agents in the treatment of the disease.

Since a high temperature is normal in scarlet fever, it requires no special treatment unless it runs continuously above 104° F. In that event it is best reduced by means of the cold bath, cold pack or sponging, rather than by antipyretic drugs. For the country practitioner, either the cold pack or sponging will be found most expedient owing to the limitations of his environment, besides minimizing the danger from shock.

In mild or moderately severe cases stimulants are not generally required, but with the first indication of the pulse becoming weak, rapid or irregular, accompanied by a feeble heart-sound, stimulants should be given. Alcohol or strychnia in combination with digitalis may be used with advantage. The throat and nose are usually more injured than benefited by overzealous attempts at local treatment, the best results being obtained,

not by active and poisonous antiseptics, but by mild, cleansing washes applied frequently and freely.

Too much stress cannot be placed upon the frequent microscopical and chemical analysis of the urine during the illness and for some time afterward; even in the mild cases late nephritis is a common sequela. During convalescence, when necessary a tonic of iron may be used effectively. With the first signs of desquamation the skin should be bathed with warm water anointed with plain or carbolized vaseline, this treatment continuing throughout the period.

Rigid quarantine regulations should be enforced; laxity in this regard is largely responsible for the spread of the disease. In our own city the patients were isolated about thirty days when, after a house fumigation of sulphur and formaldehyde they were allowed to attend school, while many having the disease in its mildest form doubtless escaped quarantine altogether. As the disease is most contagious at the height of the febrile stage and during desquamation, complete isolation of the patient should not be less than forty days, and as much longer as there is purulent discharge from ear or nose, and until desquamation ceases.

Superfluous furniture, drapery, etc , should be removed from the sick room at the outset and the room kept as clean as possible and thoroughly ventilated. All excretia should be immediately disinfected with carbolic acid or formaldehyde, the bedclothes, linen and vessels used similarily treated before being boiled. It is a fallacy to suppose that vessels containing antiseptic fluids placed about the room will be effective in preventing the spread of the disease, and too much reliance cannot be placed in fumigation by means of steam impregnated with medicinal agents.

The only safe prophylactic consists in burning all articles which cannot be properly disinfected and boiled, then washing the walls of the room, floor and furniture with boiling water containing a solution of sulphate of zinc or corrosive sublimate, 1 to 1000. Both the isolated nurse and the physician in attendance should exercise every known precaution to prevent contagion. A gown, which may be easily removed upon leaving the sick room may be used. both should disinfect their hands and face and use daily an antiseptic gargle and nasal spray.

Bearing in mind the serious sequelæ which often attends scarlet fever, even in cases of moderate severity, and the fact that from the mildest form the most malignant may be contracted, the burden resting upon the physician in charge cannot be lightly estimated. Upon him depends not only the responsibility of the patient and its future health, but the safety of the community as well. If he be conscientious in the discharge of his duty, he will see that all necessary prophylactic measures are complied with, that a rigid quarantine of not less than forty days is enforced, and that a careful examination of the patient be made before it is allowed to mingle with other children. Then, and then only, can an epidemic be averted.

THE EARLY DIAGNOSIS OF PULMONARY TUBERCULOSIS.

By H. C. Shuttee, M. D., West Plains, Mo.

The importance of the early diagnosis of pulmonary tuberculosis is evident when we recall the appalling annual death rate from this disease, and its necessity becomes the more urgent when we remember that in its incipiency it is curable in a large proportion of cases, estimated at from 50 to 90 per cent., and that very many that now prove fatal could be cured if the necessary climatic, hygienic and medicinal measures were instituted early in the disease. Yet, notwithstanding all that has been written on the subject, the diagnosis of pulmonary tuberculosis often is not made until the best time for successful treatment has passed and the patient's chances thereby greatly lessened. More than once I have been shocked to discover that a patient whom I had been treating for some digestive disorder or impoverished condition of the system, showed on close examination to be affected with this dread disease.

To make an early diagnosis of pulmonary tuberculosis one need not be, like Kipling's shipwrecked mariner, "a man of infinite resource and sagacity" Anyone with ordinary attainments can, by applying well-known means, make the diagnosis in almost every case; hence we are the more to be censured if, through our carelessness and superficial methods of examination, we fail to do so.

While these means of diagnosis are well known to all of us, and while I can add nothing new to our knowledge of diagnostic means, it is beneficial at times to renew our knowledge, to take an inventory of our stock of facts, "lest we forget," and thereby fail to do our duty both to our patient and to ourselves.

For convenience we will consider the subject under three divisions:

1st. Family and individual history.

2d. General somatic conditions.

3d. Physical signs and symptoms.

1st. Family and Individual History.—From the very earliest times the heredity of the "great white plague" has been insisted upon. Before the discovery of the tubercle bacillus, and for some time afterward, it was thought that the disease itself was transmitted from parent to offspring. Soon, however, it began to be doubted if the bacillus was ever directly transmitted, and while there are authentic cases of such transmission, they are rare, and the theory of the transmission of the soil displaced the belief of direct bacillary inheritance. Of late the tendency has been to deny even the hereditary transmission of the soil and to account for cases of apparent heredity on the theory of contact with diseased person; but, in my humble opinion, the pendulum is swinging too far. and that in arriving at a conclusion as to the presence or prospective development of tuberculosis in a given case, we cannot safely ignore the element of heredity. As in the vegetable kingdom, the proper soil is necessary that seed may germinate and reproduce itself, so in tuberculosis, the soil must be suitable for the growth and multiplication of the tubercle bacillus. If the bacillus alone were adequate to produce tu-

berculosis, we would all be tuberculous, for no one escapes contact with the bacillus. It is important, then, to discover if in the individual case this soil is present through inheritance. This inherited soil, in whatever it may ultimately be determined to consist, comes not alone as the result of tuberculosis in one or both parents; it may come as the result of syphilis, carcinoma, diabetes, alcoholism or other diseases impairing the nutrition and disturbing the metabolic processes in one or both parents. The proper soil may also be acquired as a sequence of influenza, typhoid fever, alcoholism, poverty, insanitary surroundings; in short, any disease or circumstances which produce a depressed condition of the vital forces may pave the way for the development of tuberculosis. The fact to be constantly borne in mind is that no healthy person will or can have consumption, and that the proper soil is to be sought for in the family and personal history.

2d. General Somatic Condition.—In addition to the bodily conditions already referred to as constituting the proper soil for the development of pulmonary tuberculosis, it is of the greatest importance to ascertain the *corpulence* and *thoracic perimeter*. The word corpulence in connection with the diagnosis of pulmonary tuberculosis or a tendency thereto, originated with the French, who used it with the definite meaning of the relation between the weight of an individual and his height. Progressive loss of weight, not due to discoverable cause, is a very frequent precursory condition of phthisis. In many cases it precedes for weeks or months the slight cough which is nearly always one of the first signs of beginning local trouble in the lungs. Loomis says that out of forty cases of which careful record was kept, 50 per cent. showed this antecedent loss of flesh.

In ascertaining the corpulence of an individual the actual weight alone is not to be so much considered, but the weight in relation to the height is to be ascertained. The military standard of foreign armies follows this rule: To ascertain the corpulence of an individual, divide his weight by his height in inches, after multiplying weight by 12. Thus, an average man 5 feet 8 inches high and weighing 150 pounds, would have a corpulence of 26.47. Loomis, from investigation made in this country, gives 25 as the normal corpulence of the male, and any man whose corpulence falls below 23 should be considered abnormally thin. Bouchard, after a long series of studies, places the corpulence of females at 23; in any case where it goes below 21 the woman should be considered abnormally thin.

In considering the value of corpulence in the diagnosis of pulmonary tuberculosis or a tendency thereto, it must be taken in connection with the thoracic perimeter of the individual. The thoracic perimeter is obtained by taking two measurements of the chest—one at deep inspiration, the other at forced expiration, and taking the average of the two. This indicates what the French call the "vigor of the constitution," and it should never go below one-half the height of the individual. If it goes below this, especially if associated with defective corpulence, it indicates at least

a strong tendency to phthisis, if the disease has not already begun, and should always excite the greatest suspicion. Loomis examined a number of cases of early phthisis to ascertain the correctness of this rule, and says that he found in a few cases this ratio kept; that is, the thoracic perimeter equaled half the height; in most cases it fell below this, and in none rose above the standard. I have applied this test to a number of cases of beginning phthisis, and all went below the normal standard. In cases, then, coming under our observation of digestive disorder, anæmia, or other conditions which lead us to suspect phthisis, if both the corpulence and thoracic perimeter fall below the normal standard, without foci in the lungs that could be recognized by physical signs, we would be justified in treating the case as one of beginning pulmonary tuberculosis.

It is important to note the shape of the chest. A large number of persons who are not specially liable to tuberculosis have chests differing more or less widely from the normal standard, due to faulty position assumed in childhood or in later life owing to the character of occupation; but there is a more or less typical phthisical chest which would make one suspect strong predisposition to the disease. This chest conformation is characterized by narrowness in its antero-posterior diameter, has wide intercostal spaces, and the ribs sloping more than normal; prominent scapulea with depression of the supraspinous and infraspinous fossæ, and a slight subclavicular depression, giving a leanness and hollowness to the entire chest.

The vital respiratory capacity, as ascertained by the spirometer, should be three cubic inches for each inch of stature.

3d. Symptoms and Physical Signs.—A great many cases of phthisis are preceded for a longer or shorter time by gastric symptoms; in fact, many cases in the pretubercular and incipifent stages come to us complaining of nothing but loss of appetite and indigestion associated with debility, before any pathological changes can be made out in the lungs, or even before there is any cough. These patients are poor eaters, and, as Knopf tersely says, "Bad eaters are nearly always candidates for consumption."

Associated with the gastric symptoms is often found a condition of chloro-anaemia, which, when not due to a patent cause, Loomis says, should excite our suspicion, especially in men.

The character of the pulse is often of importance in assisting to establish an early diagnosis, and this characteristic pulse, while often absent in the early stage, is also often found in the pretubercular stage. Besides its increased rapidity—it is usually from 90 to 120 per minute—it has these two characteristics: Change of position has little or no effect on its rhythm, and the arterial tension is greatly reduced. It is present only in the pretubercular stage and in the very incipiency of the disease.

After local development in the lungs has proceeded sufficiently far to be readily detected by physical signs, this peculiar and characteristic pulse is no longer present. Ordinarily the pulse varies about fifteen beats per minute in changing from the recum-

bent to the upright position, but in the condition under consideration there is very little, if any change. The best time to examine the pulse is two or three hours after meals, and the patient should be free from excitement.

I recall the case of a young man who consulted me for rapid pulse, and who, also, had family history of consumption and presented many of the somatic conditions discussed in this paper, where a diagnosis of approaching phthisis was made months before any local deposits could be made out by the physical signs, but unfortunately in this case no treatment, either climatic or medical, had the slightest effect, and he died in about two years of phthisis.

If, with this peculiar pulse, whose rhythm is not changed by change of position, there should be found increased instead of decreased tension, there is some other disease, such as nephritis, associated with the tuberculosis.

The temperature should be closely observed for a considerable time, when an evening elevation will often be found. Knopf insists on the importance of taking the rectal temperature before and after short, rapid walks, when an elevation of a degree or more will be found. Small, frequent, and persistent elevations of temperature are always suspicious; so, also, is an evening subnormal temperature.

The presence of continuous and marked dilatation of the pupil, sometimes more marked in one eye, due to irritation of the sympathetic, is also a very frequent sign of early phthisis. So, also, is paraesthesia of the pharynx and larynx, due to the same cause. Walfenstein says the peculiar characteristics of these symptoms of paraesthesia is their vagueness and indefiniteness. They consist of pain in the larynx, tonsil, tongue or sides of the pharynx, or a tickling, scratching, or burning sensation, indefinite as to beginning or location. If they are not due to a discoverable local cause, indications of phthisis should be looked for. A careful inspection of the larynx should be made, for the earliest discoverable pathological change may be located there.

Most of the conditions so far inadequately described are present and together constitute the so-called pretubercular stage of phthisis, sometimes long before any local signs can be detected or tubercle bacilli found in the sputum, and a faithful and minute attention to details in carrying out our examination will greatly assist us in arriving at an early diagnosis.

We will now take up briefly the early physical signs, not considering repeated hemorrhage or other signs that are so characteristic that one "who runs may read," because this paper is intended to consider only the early diagnosis.

When we recall how many autopsies reveal healed tubercular lesions of the lungs that were not recognized or even suspected during life, it must be apparent that some such cases of recovery pass through our hands without our even suspecting the true nature of the disease. This is sometimes no doubt due to our inability to detect by physical signs small, deep-seated lesions, but oftener our failure must be attributed to our lack of

care in making a thorough and exhaustive investigation.

I know from personal experience and observation of the work of others that physical examination of the lungs is often very carelessly made. Now, this is not right, and unless one is willing to take the necessary care and time to thoroughly do his work, it would be better for his patient if the physician would turn him over to some one who will take the necessary pains to do his duty. Besides, the consequences to his patient in the failure of the physician to do his work thoroughly, the effect upon himself can be only disastrous, as he not only loses the confidence of his patient, but he soon gets into the habit of slighting his work, with deadly effect on his growth and consequent usefulness. In case of doubt or obscurity more than one examination is necessary, and we should insist on sufficient time for continuous and repeated observation before making a positive diagnosis.

To properly examine the chest all clothing should be removed; at most only a very thin covering should be allowed, and in my judgment it is always best to insist to the point of acquiescence that false modesty be laid aside in the case of women, and the examination be made with the chest bare.

Percussion should be very carefully made during quiet breathing and at the end of expiration, when a slightly increased or heightened pitch may be detected. If the lesion be small and deeply seated the percussion may be slightly tympanitic, followed later as the area of disease increases by slight dullness. The earliest pathologic alternation in the respiratory sounds, due to tubercular deposits in the lungs, is diminished intensity or feebleness of the sound, or a slight harshness, prolonged expiratory sound, or tubular breathing with prolonged expiration, and sometimes at deep inspiration fine rales. With these the vocal fremitus is slightly increased. In estimating the importance of these signs it must be borne in mind that the normal respiratory sounds are slightly higher in pitch on the right than on the left side. By placing the patient firmly with his back against a wall or back of a high chair, the difference in resiliency of the lung tissue can often be made out.

It is highly important that the examination be made not alone in front, as is often done, but also behind between the scapula and spinal column, where a small lesion may often be located that would escape notice from in front. On this point Loomis says: "Many times on making autopsies I have found an active tuberculous consolidated area, say an inch in diameter, at one apex of otherwise healthy lungs, and with the bronchial tubes in and about the consolidated area also affected; but on account of the minuteness of the lesion I should defy anyone to make a diagnosis during life if the lungs were examined in the ordinary way. There is a way of examining the lungs that will reveal a lesion not much larger than the one alluded to, and possibly as small as an inch in diameter. If a patient's arm is brought forward on the opposite shoulder, the ear placed over the portion of the lung which is now uncovered by bringing the scapula forward, viz., just above and external to

where the bronchial tubes are given off, there will be heard tubular breathing and fine rales on coughing." Loomis claims that this is the very first physical evidence of tuberculosis, and can be detected weeks before the physical signs can be appreciated in front, where they are ordinarily looked for. The reason for this is that a majority of cases of pulmonary tuberculosis start at the apex and begin as a peribronchitis, with localized consolidations around the minute bronchi. The signs are not appreciated by listening beneath the clavicle in front, because the lesion are covered with two or three inches of normal lung tissue. Before dismissing this part of the subject it may be well to mention Murat's sign of increased voice vibration. Knopf (*Twentieth Century Practice*) describes it thus: "During loud and vigorous talking there is a vibration of the affected portion of the lung, recognized by the patient as a more or less disagreeable sensation. This symptom, which is entirely subjective, is explained by the physical law that a solid body is a better transmitter than air. At times, however, this condition may have escaped the attention of the patient, since its development is slow and not in the least painful. In order to discover it the physician should have the patient make prolonged expiration, accompanied by humming. If there is solidification, the patient will then perceive the vibration in his voice. If the left side is affected it will seem to him that there is a direct communication of the voice between the larynx and that side, while nothing whatsoever is perceived in the right, healthy side of his lungs, and *vise versa*. Murat found this symptom in a number of cases of pulmonary tuberculosis before any subjective signs of infiltration could be elicited."

The detection of tubercle bacilli in the sputum would, of course, establish the diagnosis, but often in the very early stage there is little or no expectoration, and in the pretubercular stage none at all; so we can rarely make an early diagnosis by depending on the discovery of the bacillus. Nor does the absence of the bacillus, after repeated search, invalidate the diagnosis of phthisis.

In order to bring out the physical signs and obtain sputum for microscopic examination, a few grains of iodine of potash may be given for a few days. I have never seen it do harm.

With the use of tuberculin to clear up a doubtful case I have had no experience, but its use is as first pointed out by Virchow, considered dangerous by a great many, besides it gives the reaction in the presence of chlorosis and other abnormal conditions, and at the present time it is little used.

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EDITORIAL.

THE ALPHABETICAL LIST.

Elsewhere in this issue will be found an alphabetical list of members of the State Medical Association. Special care has been used in compiling this list. The membership in the various county societies as shown in the July number of this journal was used as a basis. Lists of members with their addresses were sent to the secretary of each of the sixty-eight counties in affiliation and the corrections made as noted by him. From these rosters an alphabetical list has been made. If any errors exist the secretary of the county society should notify the secretary of the State Association at the earliest possible moment, as this list is to be sent to the American Medical Association, who

are to publish a medical directory of physicians in the United States who are members of one of the State or Territorial Medical Associations.

MEMBERSHIP IN THE COUNTY MEDICAL SOCIETY.

During the past month several letters relating to eligibilty for membership in county societies have been received from members of the State Association. Dr. W. G. Hendrix of New London writes: "It was hard for me to affiliate with homeopathy, and when my society requests me to affiliate with osteopathy, or with Christian Science, I will withdraw." As the only door to the State Medical Association and the American Medical Association is the county society it was considered necessary, before admitting any county society, to have them adopt constitution and by-laws as proposed by the American Medical Association. The by-laws state definitely that the society shall be the judge of the qualification of its members, but that every reputable and legally qualified physician who does not support or practice or claim to practice sectarian medicine shall be entitled to membership. Thus it will be seen that physicians who are graduates of recognized homeopathic schools, who do not support or practice or claim to practice sectarian medicine are eligible to membership. As for Christian Scientists, osteopaths and magnetic healers, since they are practitioners of sectarian medicine (or should I say sectarian delusions) they are not eligible to membership in the county society.

HISTORY OF MEDICINE.

When the *Journal of the Missouri State Medical Association* was established the Publication Committee, realizing the importance of the history of medicine, decided to devote one page of each issue to that study. Thus far photographs and biographical sketches of Æsculapius, Hippocrates, Aulus Cornelius Celsus, Andreas Nesalius, Ambroise Pare, William Harvey, John Hunter, Edward Jenner, Rudolph Virchow, Bernhard von Langenbeck, Theodore Billroth and Benjamin Rush have appeared, and many more are to follow. It is with pleasure that we notice several medical schools are including medical history in the curriculum. Recently $100,000 was left to the University of Leipzig for the endowment of a chair of History of Medicine. The purpose is to establish an historical museum of medicine and a special course of medico-historical research. The history of medicine is not only interesting *per se*, but it would save many doctors rediscovering methods of treatment that were known many years ago.

NEW MEMBERS RECEIVED.

Andre, Maurice, St. Genevieve.
Hertic, C. J., St. Genevieve.
Hinch, F. E., St. Genevieve.
Lanning, R. W., St. Genevieve.
Rutledge, G. M., St. Genevieve.
Meyer, A. G., St. Genevieve.
Moore, C., St. Mary.
Burgess, L. D., St. Mary.
Morganstein, H. J., Weingarten.
Counts, H. J., Ulam.
Forsythe, Robert C., Kirkwood.
Slaughter, S. C., Fredericktown.
Barrows, W. H., Mine La Motte.

Gale, F. W., Marquand.
Hudson, T. M., Perryville.
Blaylock, G. A., Silver Lake.
Bowman, C. B., Longtown.
Clark, J. P., Perryville.
Estel, T. F , Atlenberg.
Garner, K. C., Crosstown.
Hatcher, W. H , Perryville.
Manning, L. R., Brewer.
Morton, D. F., Perryville.
Russell, J. W., Longtown.
Vessells, F. M., Perryville.
Montgomery, John S., Milan.
Cooper, C. C., Rolla.
Epperly, R. G., Prairie Hill.
Wale, D. V., Carthage.
Harrutun, M. B., Joplin.
Freeland, P. L., Joplin.
McBride, C. E., Webb City.
Rogers, W. H., Ashburg.
Coil, P. E., Mexico.
Lanier, Herbert, Martinsburg.
Baker, Charles, Santa Fe.
Blankenship, W. R., Madison.
Carger, F. H., Madison.
Winters, M. S., Asherville.
Wilson, Eli, Leora.
Cline, B. J., Ardeola.

NEWS ITEMS.

The British tramp steamer Coulsden came into quarantine at New York last week with five of the Chinese crew sick with what Health Officer Doty declares is beriberi. Four deaths occurring on the way from Java were alleged to be due to cholera by the authorities at Suez. The ship was disinfected and the crew placed under observation at Hofman Island.

A report from London states that one of the crew of the steamship Weybridge, from the river Plate, which arrived in London on November 30, was taken with a suspicious illness, and bacteriological examination proves that he has the plague.

As a result of an investigation conducted by the grand jury, a physician of this city has been arrested on the charge of manslaughter in the fourth degree. The action followed the investigation by the grand jury into the death of a woman whom the accused attended when she gave birth to a child. Witnesses testified that at a time when the patient was in a critical condition the physician absented himself for forty-eight hours, and at another time he left the bedside when she needed attention and went out to look after his horse, being gone some time. The death certificate assigned puerperal fever as the cause of death.

At a meeting of the Paris Academie de Medecine, held on December 7, Dr. Albert Robin is said to have reported remarkably good results attending the hypodermic injection of colloidal gold, silver or platinum in pneumonia. By electrolysis these metals may be reduced to a peculiar state of subdivision in which they develop a ferment-like activity. By the use of these metallic ferments Dr. Robin claims to have produced defervescence in six cases out of ten before the seventh day, and that thirteen patients out of fourteen recovered. It is not asserted that the

injections form a specific treatment for pneumonia, but simply that they hasten natural defervescence and so aid the other remedies usually employed.

The Nurses' Home, adjoining the Baptist Sanatorium in St. Louis, was burned to the ground early in the morning of December 3, the inmates narrowly escaping with their lives. There were forty nurses in the building, some of whom were saved by jumping from the upper windows. The Baptist Sanatorium was set on fire by sparks, but the fire was quickly put out.

What will probably be the largest homœopathic educational institution extant is to be formed in Chicago under the presidency of Dr. George F. Shears, by combining the Hahnemann Medical College and the Chicago Homœopathic College under the name of the Hahnemann Medical College of Chicago.

Professor Robert Koch started from Berlin for South Africa on December 17 to resume his interrupted study of rinderpest and other allied diseases.

A dairyman of this city and the driver for a condensed milk company were fined recently for selling impure milk. One was fined $25 each on two charges of using formaldehyde as a perservative for cream, and $25 each on two charges of diluting unskimmed milk with 20 per cent. of water. The other was fined $25 on one charge of using formaldehyde as a preservative of cream.

The state board of health of Pennsylvania, through its executive officer, Dr. Benjamin Lee, has recently made public some interesting observations on watercress. The circumstances which brought a cress bed under suspicion are not published, but the results of the investigation are quite shocking. The water in proximity to the cress gave a bacterial count of 36,000 to the cubic centimeter. At a distance from the cress bed the count was not so high (21,000 per cc.). Sterilized water, in which a handful of cress had been washed, grew 5,000,000 bacteria to the cubic centimeter. In all the samples colon baccillus was present. Vegetables which are eaten raw have often been held accountable for typhoid infection, though satisfactory proof has rarely been obtained, Watercress has often been suspected, but never convicted, of causing typhoid fever. The observations of Dr. Lee show this toothsome little plant to be a remarkable accumulator of organic filth, and its efficiency as a carrier of infection is probably very high indeed, considering its comparatively unimportant rank as a food. The 5,000,000 bacteria introduced into each cubic centimeter of the water in which a bunch of cress was washed illustrates very strikingly the difficulty of cleansing raw vegetables. The conditions of market gardening are well known, but accurate information about the bacterial contamination of celery, cress, lettuce and cabbage is wilfully, though not unwisely, repudiated by sensitive people. Raw fruits and vegetables should not be excluded from the dietary, even

though their use involves some danger, but the kind and amount of such danger are very well worth the consideration of sanitarians. Large sums of money are annually expended upon the administration of pure food laws. Of this expenditure 80 per cent. or 90 per cent. is devoted to questions of fraudulent adulteration, having important enough commercial bearings, but often very trivial relations to public health. An experimental diet, having as its essential features raw cress, celery, lettuce and cabbage, might immortalize a "poison squad."

Channing W. Barrett (Chicago) read an interesting statistical paper on the "Mortality of Appendicitis," which was accompanied by a series of tables. Table I showed that Chicago still had a mortality in appendicitis about equal to .01 of the mortality from all causes. Table II showed that the percentage of female mortality from appendicitis varied very little from the percentage of female mortality from all causes, and that appendicitis was to be looked for as common in the female, notwithstanding the old belief that it was rare. Table III showed the greatest mortality at the best period in life, early adult life, the greatest number dying at any one year of age being twenty-two at the age of 19, the average age for all deaths being 26.34 years. Table IV showed that, leaving out the chronic cases, the average duration of the disease in the 372 cases in which the time was mentioned was 8 33-76 days. Murphy's mortality cases showed that the average time after operation until death was 2.8 days. This demonstrated that this vast number of fatal cases were operated upon at the end of the sixth day, while all authorities conceded that an operation on the first or second day was safe and desirable. Table V showed that the most frequent cause of death from appendicitis was suppuration of the appendix, caused by perforation, gangrene or passage of the infection through the wall, and peritonitis; and, further, that adhesions and obstruction were common. Many patients did not have the advantage of hospital treatment or an operation. An early diagnosis was most desirable, yet the bureau of vital statistics considered that a diagnosis was not made at all in 105 cases; a few of the remainder were made by the coroner. Some were made post mortem, and one could never know how many were made too late for any operation to save life. The long, but only partial list of vague diagnoses copied from the death certificates showed that in all probability some cases escaped detection. The author submitted the following conclusions: 1. An early diagnosis is of the first consideration. 2. All troublesome appendices should be removed without waiting for an acute attack. 3. All acute cases should be dealt with surgically in the interval between the onset of appendicitis and the dangerous rupture, without waiting for pus outside the appendix, for peritonitis, for adhesions or for a possible but remote interval. 4. Cases of perforation or gangrene, with localized abscesses, should be operated with drainage or removal of the appendix, according to the judgment of the operator. 5. Patients with perforation or gangrene without a wall of adhe-

sion are in still greater need of an outlet for the infection to lessen the tendency of infection to travel inward. 6. Prince, Murphy, Hawkes and others have shown a better percentage of recovery by the operative treatment of acute perforative peritonitis. 7. A case of acute appendicitis should be operated upon at any time if the patient's condition will permit of an operation, unless the case is rapidly, and beyond a question of doubt, convalescing. In this latter case we should wait until all acute symptoms have passed. 8. Healthy appendices should be left alone. 9. Proper treatment does not contraindicate the use of stomach lavage, or the withholding of food, and, when proper, these things should be employed, with or without operation. 10. Life is not the only consideration. The time of cure and after conditions are important. A patient going through an acute attack without operation is saved by the adhesions. Adhesions are lifesaving for the time, but they may be deathdealing afterward. The waiting treatment favors adhesions; early operation avoids them. An early operation sends the patient home in from ten days to three weeks. Twelve cases treated by the rest treatment, reported in the *Journal of the American Medical Association*, June 22, 1902, show an average of 60 7-12 days from the onset of the disease to the discharge of the patients from the hospital.—*American Medicine.*

The discovery by Menzer, a physician of Halle, of a curative serum for articular rheumatism, seems full of promise. In the two years in which Menzer has been studying this question he has become more and more convinced that this disease is caused by a streptococcus, which enters the organism through the lungs. His treatment has been equally successful in cases of acute and chronic rheumatism.

At the sixth annual Congress of Physiology at Brussels, Professor Heger, president, inaugurated a movement to erect a monument to Marey, the inventor of the sphygmograph.

Sir Conan Doyle, who graduated in medicine and practiced for a time before devoting his talents exclusively to the writing of stories, states that there was a time when a young man, who was going to do anything in the world, was passed mechanically through the bar. He says: "I believe the time will come when the similar young man will be passed through medicine, because I know no other means by which he could get to the fundamental and absolute facts of life. The mere fact that in his training a man has to undergo so searching an ordeal in the most critical years of his life, and pays such enormous attention to detail, is, in itself, evidence that he receives a splendid training. I have always said that for a man who has mastered 'Gray's Anatomy,' life has no future terrors. If our young army officers had five years' study in the same sense that the young medical man has five years' study, we should become the terror of Europe."

The government expert commission, created to investigate the oyster as a

means of communicating the germs of typhoid fever, reports that the peculiar microbian diseases of the oyster, which are exceedingly rare, are not transmissible to man, and that under normal conditions the oyster is not unwholesome at any time of the year. Though the transmission of typhoid by oysters is possible, authenticated cases are rare and involve series of exceptional circumstances, the chief sources of danger being the washing out beds and the shops of the retail dealers. That the oyster is so frequently connected with typhoid fever is due largely to the fact that the season for oysters begins during that season of the year when typhoid fever is at its maximum.

COUNTY SOCIETY NOTES.

STODDARD COUNTY MEDICAL SOCIETY.

Dr. D. R. Corbin, President.
Dr. T. C. Allen, Vice-President.
Dr. John Ashley, Secretary.
Dr. S. M. Evans, Treasurer.

The Stoddard County Medical Society met at Bloomfield in regular quarterly session, Wednesday, September 7th, Dr. T. B. Turnbaugh presiding. The resolutions of the St. Louis Medical Society relative to state institutions for the care of tuberculous patients were heartily indorsed, and the secretary was instructed to so inform the St. Louis Medical Society, and to urge upon the governor, our state senator and members of the legislature the desire of this society to have such legislation enacted. Dr. Burris, of Puxico, presented a case of empyema which had been discharging pus for the past three years through a rubber drainage tube. Members of the society, discussing the case, advised a radical operation and rigid antisepsis. Dr. T. C. Allen, of Bernie, read a paper on "Typhoid or Continued Fever." As there have been many cases of a continued or so-called "slow" fever in this section of the state, and as there has been a tendency toward diagnosing this fever as typhoid, this paper was well received and brought forth much animated discussion. The paper abridged is here presented:

"The subject assigned me is, from my point of view, an ambiguous one. I have not understood that typhoid fever is ever called continued fever. There is a form of continued fever seen here on which I have some views, and as it has at least some relation to malaria, I have elected to prepare a paper on malaria and incorporate therein some remarks on our so-called 'slow' fever.

"Malaria is a specific infectious disease, acute or chronic, due to the hematozoon of Laveran, and characterized by periodic fever, melanemia, anemia, enlarged spleen, etc. The immediate cause is the presence in the blood of the malarial parasite, the varieties quotidian, tertian, quartan and æstivo-autumnal, being the result of the presence of different varieties of the parasite. These varieties of parasite are not

varying stages of the same organism, but separate, distinct varieties of the hæmatozoon. The pernicious fever is usually due to the crescent forms of the semi-tertian variety. The parasite has two life cycles, asexual in man and sexual in the mosquito and other blood-sucking insects. It leaves the body of man, not by the ordinary channels of excretion, but is extracted by blood-sucking insects, in the vast majority of cases by the mosquito, genus anopheles, which, in turn, inoculates man. Among predisposing causes are marshy soils, low lying lands, tropical and subtropical climates and lack of resisting power; age, sex or race have little influence. As to the pathology, the chief characteristic is the enlarged spleen, due, in the acute cases, to excess of water in the blood; in the chronic cases to thickening of the trabeculæ and capsule; enlarged, softened tender liver (cirrhotic in chronic cases); kidneys cirrhotic and heart fatty and dilated in chronic cases; together with general pigmentation of all organs, and anemia.

The symptoms are typical; the onset characterized by a chill, generally following prodromal symptoms such as lassitude, anorexia, headache, sometimes vomiting; the chill followed by fever with throbbing temples, congested face and eyes, dry, hot hands, full bounding pulse, hurried respiration, intense thirst, and, later, delirium or convulsions, especially in children. A sweating stage follows, beginning about the head and neck, spreading rapidly over the body and becoming intense. It is accompanied by general relaxation and dropping of the fever with copious passage of urine. In a few hours the patient feels very well save for a sense of exhaustion. In the remittent form a single chill is the rule. In children the quotidian form is the most common; the chill is not pronounced, the sweating is slight or absent, convulsions are frequent and vomiting nearly a constant symptom. The most common complications are enlargement of the spleen and other glands, nephritis, hemoglobinuria, hepatitis, œdema, general or localized, and various skin affections.

"The diagnosis should present little difficulty. Malaria complicates many diseases and simulates many, but the microscope should settle all doubt if the distinct periodicity does not. The prognosis is very favorable, the percentage of deaths is very small.

"The prophylaxis of malaria is essentially the prevention of infection by blood-sucking insects, and, of course, strict rules of sanitation. Quinine is the specific treatment, and will certainly destroy the parasite if persistently administered. It should be given for its complete effect, the dose being regulated by the tolerance of the patient. It should be given so as to insure its presence in the blood when the parasites are most numerous, that is just after the fever. That its administration during the fever is either dangerous or hurtful is erroneous. Other drugs, as methylene blue, arsenic, the salicylates and iodides are potent. I have had a case of chronic malaria, wholly intollerant to quinine, recover under the persistent administration of salicylic acid. Warburg's tincture has often proved efficacious where quinine failed. The

various chalybeates, stimulants and other reconstructants are valuable adjuvants to the specific treatment. As a paliative measure, where the fever must be controlled, the coal tar products are, in my judgment, the best febrifuges. The treatment of every case of malaria should be initiated with thorough purgation, and for such calomel, followed by a saline, has no equal. And now, with your indulgence, I come to a very brief consideration of this continued, or so-called, 'slow' fever. While my experience has been limited, my observation has been very careful in perhaps a hundred cases. That it is not, strictly speaking, a malarial fever is clear, there is no periodicity and but one chill. I wish to be clearly understood as thinking that this is a toxic fever, the result of toxines liberated by the malarial parasite, either as excretion or as a product of its death. That it is not typhoid I hope to be able to demonstrate by a very careful differentiation between the two. The prodromes of typhoid are classic; this fever has none, coming with either a very brief malaise or a pronounced chill—always but one. Typhoid has the typical epistaxis; I have never seen such a thing in this fever. The fever in typhoid is step-like and progressive to the fastigium, resolution being usually by lysis. In this fever the acme of temperature is reached just after chill, or on the third day at latest, to drop to about 101°, where it will remain with but slight and erratic variation until resolution sets in, when it will drop to 99° and remain a few days. In typhoid roseola typhosa is characteristic; in this fever the abdomen is covered with little vesicles resembling milia. Typhoid shows much distension and tympany of the bowels; in this fever the bowels are flabby and not sensitive. Diarrhœa is the rule in typhoid; constipation in this fever. In typhoid there is delirium; in this fever I have never seen it. Carphology and hebetude are marked in typhoid; in this fever they are never seen, the mind is clear and tranquil and the patient has a sense of ease and well-being. In typhoid the patient is greatly wasted; in this fever, while he is anemic and sallow, he is never greatly emaciated. In typhoid sordes is typical; in this, while the tongue is foul and the breath offensive, there is no sordes. Since typhoid is a specific malady, resolution or death usually comes in twenty-one days; in this fever the course is indeterminate. In typhoid there is usually hemorrhage; in this, never. Typhoid cannot, from its very nature, recur; this fever is seen repeatedly in the same person. To those who have a glass, Widal's test and the typhoid bacillus will show; in this fever I feel sure neither will ever be found. This fever will not be controlled by quinine, and is best governed by an expectant symptomatic treatment. An antiseptic and supportive course seemed best to me."

The paper was thoroughly discussed by Drs. Turnbaugh, Wingo, Evans, Corbin, Vernon, Phillips and Ashley. It was generally agreed that the continued or, so-called, "slow" fever of this section was not typhoid, and the writer's position, as set forth elsewhere, was indorsed by all except Dr. Corbin, who believes that most of these cases are typhoid. Dr. Wingo,

our vice-president, who has been in government hospital service in Panama for four months, was present. Drs. Winters and Wilson were elected to membership. The following officers were chosen for 1905: President, D. R. Corbin, Bloomfield; vice-president, T. C. Allen; secretary, John Ashley; treasurer, S. M. Evans.

T. C. ALLEN, Reporter.

ST. LOUIS COUNTY MEDICAL SOCIETY.

Dr. H. G. Wyer, President.
Dr. J. T. Douglas, Vice-President.
Dr. H. T. Randle, Secretary.
Dr. C. L. Armstrong, Treasurer.

The St. Louis County Medical Society celebrated the end of its second year of existence by a dinner at the Mercantile Club, at St. Louis, on Wednesday afternoon, December 14th. There were twenty-three present. The society was fortunate in having as its guests Drs. W. B. Dorsett, the councillor for the Seventh District, Wm. Porter, A. S. Meisenbach, and N. W. Sharpe, of St. Louis.

After the dinner the annual meeting was called to order by the president, R. D. Moore. The following officers were elected for 1905: President, H. G. Wyer; vice-president, J. T. Douglas; secretary, H. T. Randel; treasurer, C. L. Armstrong. The retiring president, R. D. Moore, was elected to the House of Delegates for a period of two years.

Dr. Howard Carter, of Webster Groves, read a very careful and thorough paper upon "The Symptoms and Medical Treatment of Graves' Disease." The "Surgical Aspect of Treatment" was discussed by Drs. Misenbach and Sharpe. Dr. Dorsett gave the society some interesting reminiscences of early medical practitioners in the county, and spoke on "The Organization of the Medical Profession in Missouri." The society then adjourned to meet on January 11, 1905.

H. G. WYER, Reporter.

MONITEAU COUNTY MEDICAL SOCIETY.

Dr. J. B. Stewart, President.
Dr. A. V. Thorpe, Vice-President.
Dr. W. R. Patterson, Secretary.
Dr. H. C. Kleuber, Treasurer.

The Moniteau County Medical Society held its regular quarterly meeting at California, December 8th. The following officers were elected for next year: President, J. B. Stewart; vice-president, A. V. Thorpe; secretary and reporter, W. R. Patterson; treasurer, H. C. Kleuber; censor, H. R. Popejoy; delegate, J. P. Burke; committee on public health and legislation, H. M. Latham, S. H. Redmon and L. M. Gray. The scientific program consisted of a paper by Dr. H. Freudenberger on "Acute Laryngitis." The paper was discussed freely by each member present. After the meeting adjourned the members with their wives attended the annual banquet.

W. R. PATTERSON, Reporter.

NEWTON COUNTY MEDICAL SOCIETY.

The Newton County Medical Society held its first formal meeting in the offices of Drs. Lamson and Lamson, Neosho, November 18th. There was present the most enthusiastic

gathering of medical men ever held in this county. All parts of the county were represented, and there were several from other parts of the state. After the usual preliminary work the society adopted the constitution and by-laws recommended by the American Medical Association, and decided upon the first Tuesday of each month as time of meeting. Dr. Herman Pearse, of Kansas City, read a paper on "Retention of Urine."

The Newton County Medical Society has come to stay and to grow, and the JOURNAL may expect good reports each month, including abstracts of our best papers.

HORACE BOWERS, Reporter.

HENRY COUNTY MEDICAL SOCIETY.

Dr. John H. Britts, President.
Dr. J. G. Beaty, Vice-President.
Dr. F. M. Douglass, Secretary.
Dr. S. A. Poague, Treasurer.

The Henry County Medical Society met in regular session Wednesday, December 14th, at 2 P. M., Dr. J. M. Miller in the chair. The minutes of the previous meeting were read and approved. A communication from the secretary of the State Medical Association relative to the incorporation of the American Medical Association, was read and approved, and the accompanying petition was signed by the secretary and president. A communication from the St. Louis Medical Society asking that an appeal be made to the Missouri State Legislature to pass a bill providing for the establishment of a State sanitarium for the care and treatment of cases of tuberculosis was read, but no action taken. The annual election of officers resulted as follows: President, John H. Britts; vice-president, J. G. Beaty, of Huntingdale; secretary and reporter, F. M. Douglass; treasurer, S. A. Poague; delegate, W. H. Gibbins; board of censors, R. D. Haire for the term of three years, and G. W. Moore for the term of one year.

F. M. DOUGLASS, Reporter.

BATES COUNTY MEDICAL SOCIETY.

Dr. A. E. Lyle, President.
Dr. E. G. Zey, Vice-President.
Dr. E. N. Chastain, Secretary-Treasurer.

The Bates County Medical Society held its third quarterly meeting in Butler, December 8th, Dr. Lyle presiding. Dr. J. R. Martin was elected to membership. Dr. Ross Grosshort read a paper, the subject of which was "Infection and Recovery." Dr. E. G. Zey reported some interesting and unusual cases of kidney trouble. Dr. M. P. Overholzer, councillor for the Thirteenth District, read a most interesting and instructive paper on "The Kidneys and the Urine." These papers, together with the cases presented, were enthusiastically discussed. The society adjourned to meet in Butler the last Thursday in February, when papers will be read by Drs. R. F. Hulett, V. J. Cunnifton, G. A. Delameter, A. E. Lyle and W. H. Knott.

E. H. CHASTAIN, Reporter.

MARION COUNTY MEDICAL SOCIETY.

Dr. J. S. Howell, President.
Dr. Richard Schmidt, Vice-President.
Dr. F. Janet Reid, Secretary-Treasurer.
Dr. Thomas Chowning, Delegate.

The Marion County Medical Society met in regular session at the office

of Dr. E. L. Hornback, Dr. J. S. Howell in the chair. Dr. R. H. Goodier read a very entertaining paper on "The Benefits of a Medical Society." All present expressed themselves as well pleased with the sentiments expressed. Dr. J. J. Farrell exhibited a specimen of renal calculus passed without hemorrhage. Dr. J. S. Howell, the retiring president, read the annual address. This gave a resume of work done during the year and had for its keynote—effort—united effort. As a literary product it was excellent and was well received. Dr. W. H. Hays was elected to membership in the society. This being the close of the year a special effort was made to have a good, social time. A goodly number of professional brethren from the surrounding towns and county had been invited to attend the meeting and enjoy our hospitality for the evening. Immediately after adjournment twenty-one repaired to the Union Depot Hotel and enjoyed a repast suitable to the occasion. When the time of parting came, the opinion was unanimously expressed that the event had been a most happy one, both in its present enjoyment and in its possible good for the future of our profession in this locality.

H. L. Banks, Reporter.

CHARITON COUNTY MEDICAL SOCIETY.

Dr. M. B. Austin, President.
Dr. Harry Tatum, Vice-President.
Dr. C. A. Jennings, Secretary-Treasurer.
Dr. J. D. Brummall, Delegate.

The Chariton County Medical Society met in regular session in Salisbury, Tuesday, the 29th of November, at 8:30 P. M., Dr. Epperly presiding in the absence of the president. The minutes of the previous meeting were read and approved. Dr. Kirkpatrick's paper on "Rheumatism in Children," together with a case cited of a two and a half year-old, met with a most favorable and enthusiastic reception. The society adjourned to meet in Salisbury on the 29th of December, at 8:30 P. M.

C. A. Jennings, Reporter.

BUCHANAN COUNTY MEDICAL SOCIETY.

Dr. P. I. Leonard, President.
Dr. A. L. Gray, 1st Vice-President.
Dr. J. S. Owens, 2d Vice-President.
Dr. C. W. Fassett, Secretary.
Dr. A. B. McGlothan, Treasurer.
Dr. J. W. Heddens, Censor.

The Buchanan County Medical Society met December 2d with more than the usual attendance. Dr. C. A. Good and Dr. C. C. Gleaves were elected to membership. Two resolutions were passed. One was in shape of a communication from Dr. C. M. Nicholson, secretary of the State Medical Society, concerning medical legislation. The other endorsed the purposes and object of the Retail Merchants Association of St. Joseph. It was decided to hold the annual banquet on December 27th, at the Metropole Hotel. The annual report of the secretary was read. Sixteen meetings were held during the past year, with an average attendance of fourteen. Thirty-six papers were read, including two interesting symposiums—one on syphilis and the other on pneumonia. At present the membership of the society is seventy. Several were added during the year. New by-laws were adopted June

1, 1904. The yearly expenditures were $247.90. The following officers were elected to serve during the coming year: President, P. I. Leonard; 1st vice-president, A. L. Gray; 2d vice-president, J. S. Owens; secretary, C. W. Fassett; treasurer, A. B. M. McGlothan; censor, J. W. Heddens. Dr. Herbert Lee opened a discussion on "Epidemics." Dr. O. B. Campbell reported an unusual case of acute mastoiditis with lateral sinus thrombosis followed by death on the third day. L. A. Todd, Reporter.

JOHNSON COUNTY MEDICAL SOCIETY.

Dr. M. P. Shy, President.
Dr. T. L. Bradley, Vice-President.
Dr. E. J. Gilbert, Secretary.
Dr. O. B. Hall, Treasurer.

The Johnson County Medical Society met in regular session in the court house, Warrensburg, December 13th, Dr. O. B. Hall, presiding. The minutes of the previous meeting were read and approved and ordered made a part of the records of the society. The annual election resulted as follows: President, M. P. Shy; vice-president, T. L. Bradley; secretary, E. H. Gilbert; treasurer, O. B. Hall; delegate, John T. Anderson; board of censors, Z. Case. The retiring president being unavoidably absent, his address was read by the secretary. It was full of good suggestions looking to the upbuilding of the society. Dr. R. P. Schooley read an excellent paper on "The Treatment of Typhoid Fever." General discussion followed, after which the society returned to the subject of the retiring president's paper. Lively discussion of ways and means of advancing the interests of the society resulted in the following definite conclusions: First, there should be a more earnest effort on the part of the members to attend every meeting; second, there should be a more prompt response by those on the program to prepare and read papers; third, there should be made a greater effort toward bringing in new members, and the society should be made the vogue, fad and authority of the medical profession of the county. Membership in the society should be the necessary badge of the physician's respectability with the profession and the public. The society adjourned to meet January 10, 1905.

E. H. Gilbert, Reporter.

JASPER COUNTY MEDICAL SOCIETY.

Dr. R. L. Neff, President.
Dr. C. C. Cummings, Vice-President.
Dr. J. D. Pifer, Secretary.
Dr. C. W. Miller, Treasurer.
Dr. L. I. Matthews, Delegate.

The Jasper County Medical Society met in regular session at Joplin, December 5th, Dr. R. L. Neff, presiding. Dr. J. D. Pifer reported a case of interstitial keratitis of both eyes in a boy of seven years, the cause being hereditary syphilis. Dr. J. W. Clark, of Carterville, read a paper on echinacea, a drug unknown to most of the profession, but used to some extent by eclectics. General discussion followed the reading of this paper. Dr. S. H. Miller introduced the subject of the prosecution of illegal practitioners in the county and after a vigorous protest against the apathy which has allowed these people to thrive, he moved that the society employ an attorney to prosecute all persons prac-

ticing medicine without properly qualifying under the laws of the state of Missouri. The motion was lost. Dr. L. I. Matthews then moved to refer the matter of prosecuting illegal practitioners to the committee on health and legislation with instructions to interview the incoming prosecuting attorney and see what steps are necessary to prosecute these persons, and report at the next regular meeting. This motion carried. The society adjourned to meet in Joplin, December the 19th.

C. C. CUMMINGS, Reporter.

LACLEDE COUNTY MEDICAL SOCIETY.

Dr. J. M. Billings, President.
Dr. W. H. Wood, Vice-President.
Dr. J. A. McComb, Secretary-Treas.

The Laclede County Medical Society met at Conway, Missouri, on November 14th, at 8 P. M., Dr. Billings of Lebanon, presiding. Dr. Anderson, of Conway, read a paper advising not to tell patients what is prescribed, as it leads to using the same prescription for others of the family, or friends. Dr. Jacobs, of Conway, presented a patient with amnesic aphasia, who was examined by physicians present. There followed a general discussion of aphasia. The patient presented at least one peculiar feature. He knew no letter of the alphabet except "S," which he had not forgotten at any time. He was hemiplegic on right side with no involvement of tongue or lips; before his left eye, however, there was a space of three or four inches in which he did not see anything. He would locate the seat of the trouble by passing his finger, beginning at the ensiform cartilage up the middle of his body to the nose, pass across left eye to about three inches above left ear. He could hum any tune he formerly knew but could not remember a word of the song. There was an informal discussion of various subjects until midnight when the society adjourned.

J. A. MCCOMB, Reporter.

SHELBY COUNTY MEDICAL SOCIETY.

Dr. Wm. Carson, President.
Dr. J. D. Smith, Vice-President.
Dr. L. W. Dallas, Secretary-Treasurer.
Dr. Wm. Carson, Delegate.

The Shelby County Medical Society met in the office of Dr. Vaughn at Shelbina on September 18th at 8 P. M. As there was only a few present the evening was devoted to a general discussion of the business aspect of the profession of the county, together with several clinical reports. We are looking forward with much pleasure to our next meeting which takes place on the 22d of December at 8 P. M. in Shelbina. Our annual election of officers occurs then, to be followed by a banquet and we have invited several from outside the county to be with us. We intend to try to secure the presence and membership of every regular doctor in Shelby County on that occasion.

L. W. DALLAS, Reporter.

SCOTLAND COUNTY MEDICAL SOCIETY.

Dr. W. E. Alexander, President.
Dr. L. M. Coffey, Vice-President.
Dr. O. F. Pile, Secretary-Treasurer.

The Scotland County Medical Society met in regular monthly session in Memphis at the office of Dr. O. F.

Pile. Dr. W. E. Alexander in the chair. The minutes of the previous meeting were approved as read. Dr. J. D. Skidmore, of Memphis, was unanimously elected an honorary member. There being no regular program a general discussion was indulged in as how best to prosecute the osteopaths who use medicine in connection with their bone rubbing. We came to the conclusion that some legislation should be enacted against them. The following officers were elected for the ensuing year: President, Dr. W. E. Alexander; vice-president, Dr. L. H. Coffey; secretary-treasurer, Dr. O. F. Pile; board of censors, Drs. A. E. Platter, E. E. Parrish, L. M. Coffey.

E. E. Parrish, Reporter.

HOWELL COUNTY MEDICAL SOCIETY.

Dr. J. W. Bingham, President.
Dr. A. H. Thompson, Vice-President.
Dr. H. C. Shuttee, Secretary.
Dr. J. McBride Johnson, Treasurer.

The Howell County Medical Society held its meeting December 1st. The dates of regular meetings were changed to the first Thursday in December, February, April, June, August and October. Dr. Jas. D. Block read a short, practical paper on "Placenta Previa," and reported a case. Dr. W. T. Edwards read a paper on "Scarlet Fever." Both these papers were well received and generally discussed. The following officers were elected for 1905: J. W. Bingham, president; A. H. Thompson, vice-president; H. C. Shuttee, secretary; J. McBride Johnson, treasurer; W. T. Edwards, member board of censors for three years.

H. C. Shuttee, Reporter.

CLAY COUNTY MEDICAL SOCIETY.

Dr. L. J. Jones, President.
Dr. John J. Rice, Vice-President.
Dr. F. H. Matthews, Secretary.
Dr. J. H. Rothwell, Treasurer.
Dr. H. Rowell, Delegate.

The Clay County Medical Society met in regular monthly session at Liberty, November 28, 1904, with Dr. L. J. Jones in the chair. A very interesting paper on the subject of "Gall Stones" was presented by Dr. J. T. Marsh, and called forth a free discussion from all present. The subject of "Bronchitis" was opened by Dr. E. H. Miller, and thoroughly discussed. The interest in the meetings of this society are continuously good.

F. H. Matthews, Reporter.

RANDOLPH COUNTY MEDICAL SOCIETY.

Dr. D. A. Barnhart, President.
Dr. S. C. Adams, Secretary-Treasurer.

The Randolph County Medical Society met in Huntsville Tuesday, November 15th, Dr. D. A. Barnhart presiding. Papers were read by Drs. D. A. Barnhart and S. C. Adams on "Diphtheria" and "Antitoxin Treatment in Diphtheria," respectively. These papers were timely and very interesting, as diphtheria is quite prevalent in the county. Dr. McCormick reported a case, occurring before the prevalence of diphtheria, of mild tonsillitis, which showed no definite signs of being diphtheritic until there appeared paralysis of the soft palate followed by heart failure and death. There was no membrane after the tonsils, pillars of the fauces, uvula, soft palate or pharynx; the

onset seemed sudden, and the temperature lasted but a couple of days; the cervical lymph glands were not swollen, and there was no albuminuria present. This case report was especially valuable in that it makes manifest the extreme caution which must be used in cases of angina. The society adjourned to meet in Higbee, December 12th, at 2 P. M.

D. A. BARNHART, Reporter.

CASS COUNTY MEDICAL SOCIETY.

Dr. R. D. Ramey, President.
Dr. Geo. W. Farrow, Vice-President.
Dr. J. S. Triplett, Secretary-Treasurer.

The Cass County Medical Society held its regular meeting at Harrisonville, December 1st, Dr. T. W. Adair in the chair. A paper on "Missouri Doctors" was read by Dr. R. D. Ramey, of Garden City. Dr. G. W. Farrow, of East Lynn, read a paper on "Physiology of Static Electricity." "Diarrhea of Children" was the title of a paper by Dr. T. W. Adair. General discussion followed each of these papers. Remarks on section 3 of chapter 2 of the by-laws took up considerable time. A quiz in the anatomy of the heart was conducted by Dr. M. P. Overholzer. These quizes grow more interesting with each meeting of the society, and the manner in which the questions were answered demonstrated that the members have not yet forgotten how to "bone up," as was the custom in student days. The society adopted resolutions having for their object the prosecution of illegal practitioners in the county. Steps will at once be taken to obtain evidence which may be used against these violators of the law. The following officers were elected for the year 1905: President, Dr. R. D. Ramey; vice-president, Dr. Geo. W. Farrow; secretary-treasurer, Dr. J. S. Triplett. The society adjourned to meet at Harrisonville on the first Thursday in March, 1905.

J. S. TRIPLETT, Reporter.

PLATTE COUNTY MEDICAL SOCIETY.

Dr. R. P. Davis, President.
Dr. C. H. Chastain, Vice-President.
Dr. G. C. Coffey, Secretary.
Dr. S. Redman, Treasurer.

The Platte County Medical Society met in Platte City, December 7th, at 1 P. M., Dr. Herndon presiding. The minutes of the previous meeting were read and approved. Dr. Herndon read a paper entitled "Treatment of the Morphine Habit," in which he characterized the habit as a curable disease. To be cured must be not alone the wish but the desire of the patient. The quantity of morphine taken must be gradually reduced for about two weeks. A thorough purge of calomel, followed by a saline the next morning, must precede the complete withdrawal of the morphine. Hyoscine hydrobromate, gr. 1-200, every half to two hours is then indicated for forty-eight hours, or until the period of nervous excitement has passed. The secretions must be watched. Tincture of nux vomica, tincture of cinchona, tincture of columba or strychnia are indicated. If there be excessive diarrhœa or signs of collapse, small doses of morphine must be resorted to. The nervous symptoms may call for passiflora or avena sativa, The patient should be kept under observation for at least

six months. Dr. S. Redman read a paper on "Curettement of the Uterus" He stated that this operation is often fruitful of much harm. Tubal trouble, chronic or acute, is generally made worse by curettement, excepting when it is preliminary to some more extensive operation. In endometritis curettement is the treatment. Subinvolution calls for loose gauze drain only. The patient should never be curetted on the bed, always on the table and under general anesthesia. Strict asepsis should always be observed. After the report of the secretary on the past year's work, officers for the coming year were elected as follows: President, Dr. R. P. Davis, of Woodruff; vice-president, Dr. C. H. Chastain, of Weston; secretary, Dr. Grundy C. Coffey, of Platte City; treasurer, Dr. S. Redman, of Platte City; board of censors, Dr. A. S. Herndon, of Camden Point. After indorsing the action of the St. Louis Medical Society in regard to the proposed state hospital for tuberculosis, the society adjourned.

G. C. COFFEY, Reporter.

MILLER COUNTY MEDICAL SOCIETY.

Dr. S. P. Hickman, President.
Dr. D. H. Kouns, Vice-President.
Dr. G. D. Walker, Secretary.
Dr. H. H. Brockman, Treasurer.

The Miller County Medical Society met in regular session in Eldon, Thursday, December 1st, Frank De Vilbliss of Spring Garden, in the chair. Dr. John D. Seba, of Bland, read a paper on "Cerebral Surgery," with report of cases. The paper was very practical, being based wholly upon facts gleaned in his own practice. Dr. B. F. Bowlin, of Bagnell, read a most interesting paper on "Measles." President De Vilbliss' annual address was full to the brim of the things which the country practitioner encounters. His suggestions and recommendations were well received by the society. The election of officers resulted as follows: Dr. S, P. Hickman, president; Dr. D. H. Kouns, vice-president; Dr. G. D. Walker, secretary; Dr. H. H. Brockman, treasurer. The society adjourned to meet the first Thursday in March, 1905, in Olean, Missouri.

Dr. Frank De Vilbliss read the following paper:

Gentlemen of the Miller County Medical Society:

As far back as history records erroneous beliefs and false medical doctrines have gone hand in hand with true medicine. Ideas as absurd as the imagination can conceive of, and practices entirely outside the pale of reason, continue even till the present day. Hardly a generation has passed since it was believed by some, and no doubt the belief had its origin in some quack doctor, that if a black cat was killed and put under the bed of a patient suffering with pneumonia, it would cause his recovery; and if it did not cure him it was because the cat was obtained too late, or else it wasn't black enough. Other things equally as absurd, viz. The so-called "Christian Science" doctrine, Dowieism, Absent Treatment as advanced by Weltmer, etc., have each their followers, but are devoid of merit except such as may be obtained from suggestive therapeutics. In this enlightened age of medicine, when we can look back over a few short dec-

ades, and view with wonder, and even amazement, the progress that has been made both in preventive and curative medicine, we are astonished that these absurd doctrines find a lodgment in the minds of so large a class of intelligent people.

Especially does this seem strange to us as doctors, because as a profession we are unwilling to accept any reputed progress as true until it has been proven by experience to be a real progress. And, furthermore, that all discoveries in medicine being given to the world for the benefit of the race, a reading people ought to be able to separate the wheat from the chaff.

In part the fault lies, in my judgment, at the door of the rank and file of the recognized medical profession. We use daily meaningless expressions and otherwise indoctrinate false ideas into the minds of the laity, and some of us at least assent to, if not actually favor, the idea that there is something about our profession that is mysterious and to the laity unfathomable. Some of these erroneous beliefs and meaningless expressions that are promulgated, or rather perpetuated by some members of the profession I shall proceed to mention and comment upon, realizing that I myself have not been guiltless of some of the sins that I now condemn or censure in others; but I shall hope for pardon on condition that I promise to do better.

Hives.

One of my first patients was an infant, a few days old, whom I was informed had the "hives" and that they "gone in on it." This was the first time I had ever heard of the malady, and I hunted diligently through my small library to ascertain the nature of the disease with the hope that I might find something recommended that I could administer to "break them out." But the books were silent except urticaria, by the English was sometimes called hives, and I knew the baby did not have urticaria. In less than a year thereafter I was called to see a child of some three years, and when I arrived the patient was dead. Here and there over the body were small hemorrhagic spots caused, as I thought, by the circulation lasting somewhat longer than the respirations, as these spots had not appeared till after life had become extinct. An old lady who was present asked me if I knew what was the matter with the child and I was forced to admit I did not. She told me she did, that it had the "bold hives" and that they didn't break out till after the child was dead, and she proceeded to show me by these spots that she was right, and she further informed me that "they always killed when they didn't have the right kind of medicine to break'em out," and that doctor so and so who had then left the neighborhood and gone to farming knew just what to give. Bold hives seems to have passed into oblivion, but hives in young infants still exists in the minds of the laity and no doubt with some doctors.

Worms.

Intestinal worms, in the minds of a large class of the laity, is responsible for many of the afflictions incident to childhood, and I believe this belief is shared in to too great a degree by

some of our profession. That children may and frequently do have intestinal worms no intelligent physician will deny; but that they are the cause of convulsions, fever, night terrors and a hundred other dreadful symptoms that is sometimes attributed to them is untrue; and then sometimes I hear of doctors giving vermifuge that cuts them up so they can't be recognized. I hope none of the doctors of this society gives this kind of worm medicine. I think it would be more humane to destroy the poor worms in some less cruel manner; besides, it occurs to me that such a remedy would be rather hard on the mucous coat of the stomach and intestines.

Teething.

The cutting of the teeth is also erroneously held responsible for many nervous phenomena and digestive disturbances that sometimes affect children at that age. A child when teething is passing through a rapid developmental period of its existence, and deleterious influences as well as all influences make pronounced impressions upon its nervous system; and the reason that an infant in its second summer is predisposed to diarrheas is not because it is teething, but because at this period of its existence there are glands developing in the gastric and intestinal walls whose function is to furnish the digestive principles which are to digest the food which the child shall masticate with these teeth when they are matured. In the manufacture of these glands there is required a large afflux of blood so that the mucous membrane of the stomach and intestines is in a constant hyperæmic condition. To this add the depressing effect of intense heat and conditions are very favorable for digestive troubles and only lacks an indiscretion in diet, either in quantity or quality, as an exciting cause to precipitate an attack of indigestion.

Suppressed Menstruation.

Frequently as a result of some exhaustive diseases like tuberculosis having laid its hold upon some young woman, or older one for that matter, the menstrual flow becomes scanty or ceases. There is a belief more or less prevalent among the laity that this is the cause instead of the result of the sickness; and because of this erroneous belief they want the efforts of the doctor directed towards re-establishing the flow. To do this is not only futile but may and does cost valuable time to the patient. In their anxiety the friends of the patient will sometimes talk with a doctor not interested in the case for the purpose of getting his opinion on this particular point. I am sorry, gentlemen, that in this enlightened age of medicine some of our profession have either maliciously or ignorantly assented to this false doctrine; and it not only more firmly fastens a false belief in the minds of the people generally, but it falls on willing and receptive ears and seriously handicaps and hampers the honest doctor who is using all the tact and skill at his command to uphold, sustain and encourage a poor, suffering woman in her slow but sure transit from health to the grave, besides doing the patient incalculable harm.

Ulcers on the Womb.

This is an affection which is reputed to be found by some physicians, and women are treated for it regularly for months when no such condition ever exists except in specific or malignant disease.

This is a form of charlatanism entirely too frequent. To resort to such methods to hold a patient is to betray the trust reposed by the patient and may reflect upon the doctor who previously treated the case, because the woman treated can only infer that her previous physician had not recognized the nature of her malady.

Biliousness.

The word "bilious" has long been used and is still used by many in the profession when, in fact, the actual condition existing will not admit of the use of the term. There is not too much bile but the furred tongue, the sluggishness, lassitude and general feeling of malaise which people complain of whom we call "bilious" have these symptoms as a rule from imperfect elimination of the waste material of the economy. A physic will, usually at least, give temporary relief, not by removing the bile but by removing the excess of effete material with which the system is burdened.

Liver Disease.

Probably no organ of the body is accused of being the seat of disease as much as the liver. Especially is this true with the patent medicine men who advertise their "liver pills," "liver regulators" and "liver medicines" on every plank fence and old barn in the country, and yet the liver is as seldom primarily diseased as any other organ of the body; and doctors are not entirely guiltless. To me it sounds very much like quackery for a patient to tell me that Dr. A. had examined him and told him "it was his liver." I have heard doctors use the same expression, and it is wrong because it conveys no idea of the pathological condition. I am aware that we have people with diseased livers; I do not refer to that but rather to that class, frequently neurasthenics, who are told by their doctor that their "liver is out of order" and that "they need some liver medicine."

Cold.

The word "cold" is so universally used to designate acute catarrh of the upper air passages that an effort on the part of the profession to discontinue the term would probably prove futile. However, it is unscientific, and for that reason should not be used.

Touch of Disease.

Did you ever hear of anyone having a "touch of pneumonia" or a "touch of typhoid fever?" This is only a clever way of expressing ignorance as to just what the malady is. Either the patient has pneumonia or typhoid as the case may be, or he doesn't have it, and it would be more manly to state frankly that the symptoms and conditions are such that a positive diagnosis cannot yet be made than to evade in this manner. There are few who do not know that diseases differ widely as to severity in different cases; that modifying influences, personal peculiarities and the similarity of many affections in their onset frequently mask the exact pathological condition. My experi-

ences are that an open and frank statement to the family or friends, as above indicated, is calculated rather to inspire confidence than to destroy it; besides, such meaningless expressions lower the profession in the estimation of all thinking people. Anybody that stops to think knows that a touch of pneumonia or typhoid means that we don't know whether the patient has it or not. There are doubtless many other things which do not at this time come to my mind; but let these suffice. What I contend for is to call a disease or a condition by its right name.

We are supposed to represent a learned profession, and it is incumbent upon every member thereof to elevate rather than to lower the dignity of it. Each should use his influence along the line of rational, sensible medicine, and be able to state, as far as may be, that if a thing is so why it is so, to the end that so large a class will not look upon our cult as bordering on the mysterious. As members of an honorable profession, we should seek to honor it by familiarizing ourselves with the teachings of the day. There is no position where the responsibilities are greater, no business where the opportunities for serving our fellow man are better, no vocation more noble, no calling which, if pursued in an ideal, unselfish manner, that is more Christlike in its tendency than that of the intelligent, well qualified, honorable and conscientious physician. On the other hand when followed without in some degree these higher motives to inspire fair dealing with his professional brethren, and competent, honest service to his patronage, it is as low and damnable as the other is high and noble. There have always been enough within the ranks of the profession who care not for the means used to secure the end, and the end is the dollar, and the dollar to them is greater than life or health in the other fellow, and these fellows make use of the superstition and ignorance (two "boon companions") abroad to further their business.

If we, as honest, intelligent and competent physicians, ever hope to drive these charlatans and quacks out of business, we must educate the laity along the lines of rational, sensible medicine, and the first move in that direction is to get right ourselves. The stream cannot be purer than the fountain, and if we hold to and perpetuate false ideas, we need not expect the laity to go further than we lead. G. D. WALKER, Reporter.

ABSTRACTS.

Treatment of the Stump in Appendectomy.—In the November number of the *Annals of Surgery*, Dr. M. G. Seelig strongly advocates the simple ligature and cautery method of dealing with the appendix. He bases his contentions on rather extensive experimental histologic and bacteriologic some data, and on the clinical course of twelve hundred cases of appendicitis operated upon during his interneship at the Mount Sinai Hospital of New York City.

He takes up the ordinary methods

of inverting the stump and shows that they are all open to two serious objections, namely, the burying of an infected stump, and the possibility of secondary hemorrhage. Very frequently an artery runs under the peritoneal coat of the appendix. This vessel may cause fatal bleeding when the stump is inverted into the cæcum, without previously ligating its base.

Dr. Seelig shows that a simple ligature tied around an appendix effectively closes off the lumen and forms a well-protected stump, that does not call for the necessity of any burying sutures. Moreover, he shows that a stump that has been cauterized with carbolic acid or the actual cautery is absolutely sterile and may be left in the free peritoneal cavity with impunity.

The author's final argument is, that since the simple ligation and cautery method is demonstrably safe, since it is free from dangers inherent in the other methods, and since it is much less time consuming, it is entitled to be called a "typical method of appendectomy."

The Chinese Management of Transverse Presentation.—Dr. Anna Gloss, Pekin, China, states as follows: One day two men came to my house seeking a foreign doctor to go to the aid of a woman who was in labor. All they could tell me was the "arm had come down, and that the people were too poor to pay even the hire for cart for the doctor. Truly, they were too poor. The house consisted of a single room, seven by eight feet. It was built of waste boards, paper windows and broken brick. A cotton curtain did duty as a door even in the middle of winter. The kang, or brick bed, filled the entire room except a space two feet wide opposite the door. In this space, which had only a dirt floor, stood a table and a stove made from a discarded kerosene oil tin. Our wraps were left out of doors, and with difficulty we found a place inside to open up the obstetrical bag.

We found the patient on the kang, dressed in her best clothes, half reclining in her mother's arms. A dying Chinaman is always dressed ready for the grave, so that the family need handle the dead body as little as possible.

The woman, we learned, had been in labor three or more days. The midwife had begun with the ordinary methods. Expensive incense had been burned under the mother's nose. a lighted candle had been placed in front of the vulva, the father had been sent upon the roof and his name repeatedly called in loud tones. All this to stimulate the child to come forth. Then the midwife sat behind the patient on the kang, with her arms tightly clasped around her waist, making strong pressure from above, to compel the same desired end.

All should have gone well, but, unfortunately, the arm instead of the head came down. Then the midwife realized that she had a difficult case on hand. She procured some catsup from a neighbor, anointed the arm with it and repeated over it many times:

"Tzu, tzu, tsun, tsun, niang, niang,
Lung sheng, niang, niang,
Kuai, kuai, tang, tang, tang, ti."

Which, being interpreted, means, "Go back into the womb and come out properly." She then went home to dinner.

Returning some hours later and finding the arm still down, she went through the same performance, only using vinegar this time. Coming back again and finding no results from either the catsup or the vinegar, she tried the magic of salt and prayers. She did not use the decinormal salt solution, but took the dirty brown salt used in their food. This also proving of no avail, she pulled upon the arm until it parted at the elbow, then upon the forearm until it also came away at the shoulder.

When there was nothing more within reach to pull upon, and pushing from above did no good, the midwife was in a dilemma. The pains had ceased and the patient was exhausted with loss of blood and want of sleep and food. At this point a neighbor's consultation was held in the court. Someone had heard of the foreign doctors, and two men kindly offered to go in search of one.

It was some hours later when we arrived on the scene, and in the meantime the family had given up all hope and dressed the sufferer ready for her coffin. Her pulse was so bad that with all possible haste we got her down on the kang by removing the old mother and the pile of pillows that supported her, took off the fine cloths, under which we found the pieces of dismembered arm, and blood and filth-soaked coarse paper, the only absorbent used in such cases. We brought her to the edge of the kang on a clean sheet, which we carrrid with us, and made a hasty washing-up. It is safe to say that this was the first washing of anything or anybody that had been done for three days. The child was soon delivered by turning. From its position and that of the placenta it must have been dead some time.

The vulva was so edematous and blue that it seemed the tissues must tear at touch, but they were not badly torn. The uterus was slow about contracting, but finally did so, and we left our patient to the tender mercies of her ignorant but anxious friends, warning them against making her sit up as soon as we were gone.

She quite natually had fever, but we were not called to the house again, though the husband came to us for medicine for her for ten days. Whether she finally lived or died we will never know, unless at some future time she needs to consult us. Then she will come and tell us that she is the woman whose life we saved. —*Chicago Clinic.*

The Purification of Typhoid-Infected Water.—Director Edward Martin's enthusiastic and unconditional advocacy of copper as a germicide in purifying drinking water contaminated with typhoid bacilli has attracted widespread attention to the work of Drs. Moore and Kellerman, of the United States department of agriculture, much more, probably, than these investigators had looked for. As is well known, the original object of their researches was to discover a chemical that would destroy certain forms of algæ that render drinking water kept in reservoirs offensive to taste and smell. Copper was found

to have this power in solutions so dilute that, at least so Drs. Moore and Kellerman maintain, it is harmless to the consumer of the water. The strongest solution found necessary is that of one part copper to a million parts water. In a recent address before the Philosophical Society, Dr. Moore stated that copper fulfills the three requisites to be considered by municipalities in undertaking to purify their water-supply from algæ, and even from bacterial growth, namely, efficiency, harmlessness and cheapness, a reservoir holding 80,000,000 gallons having been successfully treated at a cost not greater than $50. There is sufficient evidence that regarding algal growth the method is efficient. It has been successfully applied in several New England towns, in Elmira and Cambridge, N. Y., and in Butte, Montana. Regarding its value in destroying typhoid fever germs, however, opinions are conflicting. Dr. Martin claims, as the result of some experiments made at the laboratory of the bureau of health of Philadelphia, that typhoid bacilli are destroyed in drinking water kept in copper vessels for four hours, the destruction being accomplished by the colloidal solution of copper formed by the action of the water on the walls of the vessel. Quite different results, however, have been obtained by Professor John H. Long, of the Northwestern University of Illinois, who has investigated the subject at the request of the Illinois state board of health. According to him, while the death rate of typhoid bacilli is high in sterilized water placed in contact with copper, the germs can persist in suspicious water for two or three days, and even longer. Professor Long, moreover, claims that the disappearance of the typhoid bacilli from water in a copper vessel cannot be attributed entirely to the germicidal action of copper. Typhoid bacilli disappear from ordinary water in from one to ten days, and from Chicago tap water in about five days. Hence, the disappearance of the bacilli four hours after their addition to the water may be due not only to the action of the copper, but also to the natural destruction of these bacilli in water. Dr. Pennington, of the Philadelphia health bureau, is experimenting at present with colloidal solutions of copper obtained by passing water over electrically charged copper plates. But even if copper in the extremely dilute solutions advocated is capable of destroying typhoid bacilli, it still remains to be settled whether it is entirely harmless to human beings. A priori, any chemical capable of destroying resistant bacteria, must be looked upon as harmful to animal cells, and, as the the question stands at present, it would be unwise for a city to treat its whole water supply with copper. Dr. Abbott, in the discussion upon Dr. Moore's paper at the American Philosophical Society meeting, suggested that one of the six reservoirs of Philadelphia be set apart for experiment with copper, and this suggestion appears quite reasonable. The opportunities for investigating the subject are probably better in Philadelphia than anywhere else, owing to the number of separate reservoirs and to the prevalence of typhoid fever.—*American Medicine.*

On the Causation and Treatment of Incontinence of Urine in Children.—The etiology of enuresis has always been a much-disputed matter. Some regard it as a purely functional disturbance; some think that there is always a local disease behind the neurosis, and many take a somewhat intermediate view. The clinical varieties are generally admitted, theoretically, to be numerous. In practice, however, there is a strong tendency for the medical man to get into the way of classing the cases unscientifically into two groups—those which recover and those that get worse in spite of treatment.

The most important recent contribution to the subject is that of Dr. J. G. Rey on the results of his experience in the investigation and treatment of fifty-two cases of enuresis in children which he has had under observation during the last five years. Rey is convinced, when there is no central nervous lesion or mental defect present, and non-infantilism or athyria, the wetting is always primarily due to the presence of local disease or irritation of the bladder or of neighboring parts. The local disease or irritation may have passed off by the time the case is seen, but originally it was there. In cases where the local cause recovers in this way, but the enuresis continues, it is easy to see that faradism, epidural injections, etc., may bring about a sudden cure.

One of the commonest and most important causes is latent cystitis due to bacillus coli. Rey has found the internal administration of salol, along with a strict milk diet and regular meals, to be better than washing out the bladder in these cases.

Another very important cause of enuresis is simple mucous cystitis. The child's distress can often be relieved, even within twenty-four hours, by regulation of the diet and administration of salol. When there is an irritation or constriction of the meatus, this greatly favors the continuance of the incontinence. A less frequent cause of enuresis is phosphaturia. This is best treated by a flesh diet and a diminution of vegetable food. It is sometimes caused by an accumulation of smegma about the corona glandis.

Epidural injections have been suggested by Dr. F. Cathelin and Dr. G. Kapsammer for enuresis. These injections have been followed by no untoward effects, and have done a great deal of good.

Another new method of treatment for obstinate cases has been devised by Professor Jaboulay. Large quantities of sterile salt solution are injected into the retrorectal connective tissue. Revel has had three cases that were treated by this method with entire success. — *Scottish Med. and Surg. Jour.*

Madness in Armies in the Field.—Dr. Paul Jacoby, physician-in-chief to the Provincial Asylum of Orel, Russia, strongly urges, says the *British Medical Journal*, the necessity of a special psychiatric service for soldiers on campaign. The privations and fatigues of active service, the nervous tension caused by ever-present danger, the frequent mental shocks, alcoholism and wounds, all

predispose to madness. In the Franco-Prussian war, Dr. Jacoby was struck by the number of cases of mental disorder, mostly degenerative forms and psychical traumatisms, which came under his observation. Inquiry among Russian medical officers who served in the war with Turkey in 1877-78, showed that a large number of acute psychoses occurred among the troops. Such diseases were also very common among the Russian soldiers in the war with China in 1900, and many men who had gone mad were shot that they might not fall into the hands of Chinese torturers. During the present war many cases of delirium have been observed, especially in the garrison of Port Arthur. On board the Manchuria, when taken by the Japanese, there were found fourteen insane soldiers who were being sent back to Russia. "Let us try," says Dr. Jacoby, "to imagine the condition of these unhappy men after a six weeks' voyage spent entirely in the hold of the ship." In European wars the need for special provision for the care of lunatics during hostilities does not make itself acutely felt, for there are always asylums of some kind within reach. But in warfare in uncivilized countries, where distances are extreme and there are no railways to shorten them, where the food supply is scanty and precarious, and where the climate adds to the general misery of things, the lot of such unfortunates is truly wretched. There are, according to Dr. Jacoby, no lunatic asylums of any kind in Manchuria; the "departments for the insane" of the provincial hospitals of Siberia are "simply appalling" and they are full to overflowing. To transport sufferers from nervous or mental disturbance a distance of 10,000 kilometres in time of war by a railroad encumbered with military trains would deprive them of all hope of cure. The novelty of the conditions under which modern warfare is conducted adds greatly to the strain on the nervous system of the combatants. Dr. Jacoby compares the sinking of ironclads by the explosion of torpedoes and mines to earthquakes and volcanic eruptions which, it is well known, are accountable for much mental disorder. He thinks it is likely that these new forms of shock will produce new forms of neuroses and mental disorder. Medical officers have already more than enough to do in looking after the sick and wounded, and there are grave objections to placing insane patients among the ordinary occupants of the military hospitals. Dr. Jacoby thinks that if arrangements could be made for the immediate treatment of insane soldiers in separate tents, under special care, they would have a good chance of recovery. He is of opinion that the crimes of violence, rape, etc., which are so common among soldiers in the unbridled license of war, are largely due to mental disorder, and that such cases would be more effectually and more justly dealt with by medical ministration to the mind diseased than by court-martial. — *Journal of the Association of Military Surgeons.*

Fats, Absorption of, in Infants.— An experimental investigation of the varying capacities of the absorption of fats in the infantile intestine was made by P. Nobecourt (*Revue Men-*

suelle des Maladies de l'Enfance, August, 1904). The amount of fat absorbed is found by taking the difference between the amount taken in with the food and the quantity found in the fæces. In this way may be obtained the coefficient of absorption. It is necessary, however, to take into account the quantity of fat ingested, for, in fact, if the infant take very little fat, nearly all of it may be absorbed, while, on the other hand, if a great deal is ingested a large amount will be found in the fæces even though the digestive and absorptive powers may be quite marked. In general healthy, breast-fed infants have a very marked absorptive capacity for fats, even though they be prematurely born. A more or less constant impairment of this capacity is found in weak, dyspeptic infants, in infants sick with intestinal or pulmonary infections in cases of myxoedema. In convalescents from measles the absorption of fats is normal. In determining the kind of food the infant should have it is necessary to take account of its fatty absorption coefficient. In infants who ingest a quantity of fat too great in proportion to the amount absorbed, it is necessary to diminish, if not the quantity of milk, at least the quantity of fat. In certain cases skimmed milk or buttermilk produces excellent results.—*Medical News.*

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The Kentucky State Board of Health, in its war on unsanitary conditions in railway coaches, will receive a godspeed from every railroad passenger in whatever part of the country, who stops to think on the dangers of dirt and disease to which he is subjected. The plush seat is the center evil which the Kentucky board is attacking. It has been placed under state ban, and the board proposes to indict every railroad official it can reach in the state who can by any possibility be held responsible for operating cars with such seat coverings. Either leather or cane is permitted as a substitute. The requirement extends both to sleepers and day coaches. There is no question but that the plush seat is one of the finest receptacles for filth that could be devised. The dust that blows in through the open car windows is caught and held fast, and if any disease germs are in the air they are pretty sure to find a camping out place on the plush until a human victim comes along. Leather seats are not open to any such sanitary objection, but they are hot and often uncomfortable, and not at all to be compared for downright ease with the cane seats, which are usually set aside for day coaches, tourist sleepers, and the least pretentious cars. Another good seat covering is of linen, which can be taken off and cleaned at frequent intervals. It would be well for every state to make provision by legislation for sanitary seats, sanitary bed clothing in berths, and the best possible ventilation. The railway companies have had much more interest in mere appearances than in healthfulness in the past. Some of them are learning that looks are comparatively a minor detail, but others need to be taught.—*American Medicine.*

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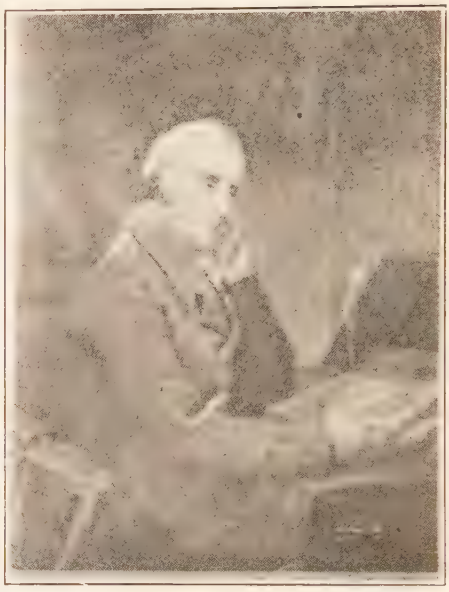
G. Muscatello reports the case of a woman of thirty-two who was taken ill suddenly with symptoms of severe

infection. She had high fever, vomiting, headache, pain in axillary region, enlarged palpable spleen, distended abdomen, no diarrhœa. She developed broncho-pneumonia of upper and middle lobes of right lung, and became jaundiced. Widal and diazo reactions were positive; typhoid bacilli were cultivated from spleen by puncture. The sputum contained the diplococcus of Frankel. A diagnosis of typhoid fever and pneumonia was made. The latter was disappearing, and the patient improving, when, on the fourteenth day, she complained of very severe pain over the spleen, which was more enlarged than ever. The area of dullness extended to the median line anteriorly, and to the umbilicus below. Distinct fluctuation developed during the next few days. A swelling appeared in the middle of the right thigh; an exploratory puncture confirmed the diagnosis of abscess; a huge abscess was opened and cleaned out; a necrotic piece of spleen was found in the abscess cavity; the thigh abscess was also opened and cleaned out. The patient made an uneventful recovery. From the pus of both abscesses Frankel's diplococcus was isolated; colonies were cultivated on agar, gelatin and peptonized broth. The author speaks of this as the first splenic abscess due to the pneumococcus, and remarks on the presence of the typhoid bacilli at the outset, and its absence in the cultures.

Clarence M. Dally, Martyr.—Another name has been added to the long roll of those who have sacrificed their lives in the interest of science, and it loses nothing in luster from the fact that its bearer was not widely known. Mr. Dally was simply an assistant to Thomas Edison in a long series of experiments in connection with the Roentgen rays. In the regular course of his duty it became necessary for him to handle many acids, and submit his person again and again to the influence of the mysterious rays. As a result he became afflicted with a lingering, but deadly malady. All that science could do to save him was done. He submitted to no less than seven operations, including skin-grafting and the amputation, first, of a finger, and then of both arms. He suffered "many things from many physicians," and after years of torture has died while yet in his prime. Very fortunately, however, unlike others who have fallen in a similar cause, he lived long enough to be assured that his sacrifice was not in vain.—*Newark Evening News.*

THEODORE BILLROTH.

Theodore Billroth, the great Vienna surgeon, was born in Berlin in 1819. Expert with the knife and equally expert with the microscope, he was the great teacher who drew many Americans to Vienna; he was the surgical sun of Austro-Hungary, around whom revolved all the other great medical lights in the empire. Among the notable German surgeons who owe to him their excellent training and inspiration are Czerny, Gussenbauer, Mikulicz and others. Pirogoff, the great Russian surgeon, was one of his pupils. To Billroth we are indebted for the initiation of many daring operations. He first successfully resected the larynx and the stomach. His great and elaborate work on "Coccobacteria Aseptica," although now obsolete, marked an era in surgical pathology. His work on "Surgical Pathology" reached fifteen editions and has been very widely translated.



BENJAMIN RUSH.

The most conspicuous medical character in American history during the eighteenth century was Benjamin Rush. He was born on his grandfather's homestead near Philadelphia in 1745. After a careful preparatory school and college education at home and six years' apprenticeship with a doctor in Philadelphia, he went to Edinburgh, where he took his M. D. degree in 1768. After a year in the hospitals of London and Paris, he returned to Philadelphia to begin practice at the age of twenty-four. He at once became a leading spirit in the political and social movements of the day. He was a member of the Continental Congress and a signer of the Declaration of Independence. His best-known works comprehend five volumes of "Medical Inquiries and Observations." He died in 1813, after a five days' illness from typhus fever.

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Baumgarten, W., St. Louis.
Bayliss, W. M., Fulton.
Baysinger, S. L., Rolla.
Beale, John T., Versailles.
Beattie, T. J., Kansas City.
Beaty, Jos. G., R. F. D. No. 2 Clinton.
Becker, W. H., St. Louis.
Bedal, A. C., St. Louis.
Beedle, G. A., Kansas City.
Beeman, S. M., Chillicothe.
Beeson, H. O., Noel.
Behrens, L. H., St. Louis.
Bell, J. M., St. Joseph.
Bell, E. W., Osceola.
Bell, W. T., Stoutsville.
Bellows, G. E., Kansas City.
Berry, A. J., Warrensburg.
Berry, G. F., Kansas City.
Berry, J. W., Reform.
Berry, Robert W., Mexico.
Best, W. S., Anderson.
Bickel, J. T., Mound City.
Bilbrey, J. H., Puxico.
Billeter, W. J., Bynumville.
Billings, J. M., Lebanon.
Bingham, J. W., Pottersville.
Binnie, J. F., Kansas City.
Bishop, F. L., St. Louis.
Birney, W. L., Oakwood.
Black, W. D., St. Louis.
Blacksten, H. E., Excelsior.
Blackwell, Z. T., Joplin.
Blair, V. P., St. Louis.
Bland, B. L. S., Vandalia,
Bland, W. W., Vandalia.
Blankenship, W. R., Madison.
Blanks, C. L., Farmington.
Blaylock, G. A., Silver Lake.
Bliss, M. A., St. Louis.
Block, J., Kansas City.
Bock, A. F., St. Louis.
Bodine, M. S., Paris.
Boehm, J. L., St. Louis.
Boemler, G., St. Louis.
Bogart, T. N., Excelsior Springs.
Boggan, P. P., East Prairie.
Boggs, J. D., Rhoades.
Bohanan, W. T., Nevada.
Bohling, Cord, Pyrmont.
Boisliniere, L. C., St. Louis.
Bond, H. W., St. Louis.
Bond, Y. H., St. Louis.
Bonham, Vaughan Q., New Franklin.
Bondurant, W. E. H., Memphis.
Boogher, F., St. Louis.
Boogher, J. L., St. Louis.
Booth, D. S., St. Louis.
Borck, E., St. Louis.
Boutelje, J. J., Jefferson City.
Bounds, E. H., Hannibal.
Bourn, J. J., Hannibal.
Bowlin, B. F., Bagnell.
Bowden, L., Appleton City.
Bowman, C. B., Longtown.
Bowman, Dora E., Kansas City.
Bowman, J. W., Kansas City.
Bozarth, John A., Centerview.
Bradley, A. H., St. Louis.
Bradley, T. L., Warrensburg.
Bradley, W. E., Ethel.
Brainard, B. F., Martin City.
Bramel, H. W., McGirk.
Brandon, J. P., Essex.
Brandt, A. L., St. Louis.
Bremer, L., St. Louis.
Bresius, W. L., Gallatin.
Breuer, W. H., St. James.
Brewington, G. F., Bevier.
Bribach, B., St. Louis.
Bridges, A. C., Kahoka.

Bridges, A. D., Portland.
Bridges, J. B., Downing.
Bridges, J. R., Kahoka.
Brierly, H. A., Peculiar.
Brierly, John B., Gun City.
Briggs, W., St. Louis.
Briney, E. A. P., Bloomfield.
Bristow, G. M., Princeton.
Britts, John H., Clinton.
Brockhauser, C., Herman.
Brockman, C. O., Bagnell.
Brockman, H. H., Eldon.
Broderick, J. K., St. Louis.
Brokaw, A. V. L., St. Louis.
Brooke, H., St. Louis.
Brooks, H. S., St. Louis.
Broome, G. W., St. Louis.
Brown, H. G., Boswarth.
Brown, John E., Florida.
Brown, Jno. Young, St. Louis.
Brown, L. S., St. Louis.
Brown, Ralph, Kansas City.
Brown, S. M., Monroe City.
Brown, Tinsley, Hamilton.
Bruehl, J., Kansas City.
Brummall, J. D., Salisbury.
Brunig, F. H., Kansas City.
Brunner, E. E., Fulton.
Buck, T. E., St. Louis.
Buck, U. W., Rothville.
Buckwalter, J. C., St. Louis.
Buhman, Rudolph, St. Louis.
Bulware, T. C., Butler.
Burford, C. E., St. Louis.
Buren, Chas. R., Princeton.
Burgess, L. D., St. Marys.
Burgess, J. W., Belle.
Burgess, W. J., Wyaconda.
Burke, C. L., Kansas City.
Burke, F. W., Laclede.
Burke, J. L., Laclede.
Burke, J. P., California.
Burkholder, O. F., Higbee.
Burnett, E. C., St. Louis.
Burnett, S. G., Kansas City.
Burns, Robt., St. Louis.
Burns, W. F., Newburg.
Burrill, C. W., Kansas City.
Burris, L., Puxico.
Burton, S. L., Kaseyville.
Bush, F. W., Hannibal.

Cadwallader, I. H., St. Louis.
Caldwell, W. C., Essex.
Calfas, W. S., St. Louis.
Callahan, Richard, Kansas City.
Callaway, L. H., Nevada.
Callison, C., Brashear.
Calloway, G. L., Warrensburg.
Calvert, W. J., Columbia.
Campbell, A. V., Glendale.
Campbell, G., St. Louis.
Campbell, J. F., Callao.
Campbell, O. B., St. Joseph.
Campbell, O. H., St. Louis.
Campbell, Wm. L., Kansas City.
Cantwell, J. L., Bucklin.
Caplan, L., St. Louis.
Cape, L. W., St. Louis.
Carbaugh, E., Kansas City.
Carl, S. T., Kansas City.
Carley, H. D., St. Louis.
Carman, R. D., St. Louis.
Carpenter, S. F., St. Joseph.
Carryer, C. H., Hartford.
Carr, B. F., Polo.
Carson, G. W., St. Louis.
Carson, N. B., St. Louis.
Carson, Wm., Shelbyville.
Carter, Howard, Webster Groves.
Carter, J. J., St. Joseph.
Carter, Marcus, Burlington Junc.
Cartwright, C. P., Longwood.
Carver, F. H., Madison.
Case, Z., Warrensburg.
Cathcart, C. P., Kansas City.
Cave, E. S., Mexico.
Chaddock, C. G., St. Louis.
Chaffin, W. T., Raymore.
Chambers, J. Q., Kansas City.
Chambliss, E. L., Kansas City.
Champion, J. R., Hilldale.
Chapman, A. W., Charleston.
Chapman, Chas., Shelbina.
Chase, A. U., Tiff City.
Chastain, Chas, H., Farley.
Chastain, E. N., Rich Hill.
Chastain, M. T., Marshall.

Chenoweth, L. C., Webb City.
Cherrington, J. F., Chillicothe.
Chesmore, H. P., Princeton.
Child, Scott P., Kansas City.
Chilton, J. A., Van Buren.
Chilton, J. C., Hannibal.
Chilton, T. W., Corridon.
Chowning, Thos., Hannibal.
Christian, C. H., New Bloomfield.
Churchill, E. R., Nevada.
Clagett, I. O. F., Jamesport.
Clapp, C. B., Moberly.
Clark, J. P., Perryville.
Clark, J. W., Carterville.
Clark, W. A., Jefferson City.
Clark, W. J., St. Louis.
Clark, W. J., Linn Creek.
Clarke, Chas. E., Kansas City.
Clarkson, David, Annapolis.
Clemens, Jas., St. Louis.
Clement, Jos., Nutley, N. J.
Clemmons, W. M., Cleveland.
Cline, B. J., Ardeola.
Cline, W., Appleton City.
Cloonan, M., Ruble.
Clopton, M., St. Louis.
Cobb, Chas. D., St. Louis.
Cochran, B., Brookfield.
Codwell, Victor, Poplar Bluff.
Coffee, J. T., Steelville.
Coffey, E. McD., Platte City.
Coffey, Grundy C., Platte City.
Coffey, L. M., Hitt.
Coffey, W. H., Kansas City.
Coffin, Geo. O., Kansas City.
Coil, Paul E., Mexico.
Cole, H. B., Sedalia.
Coleman, H. B., Kansas City.
Coleman, H. T., Pattonville.
Collassowitz, A., St. Louis.
Collins, M. T., Sedalia.
Collins, T. A., St. Louis.
Connolly, P. D., St. Louis.
Connoway, J. W., Columbia.
Cooney, D. C., St. Louis.
Cook, F. L., Blue Springs.
Cook, R. F., Carrollton.
Cook, T. B., Rayville.
Coon, D. W., Trenton.
Cooper, C. C., Rolla.
Copeland, C. C., Mill Grove.
Copeland, W. A., Ellington.
Corbin, D. R., Bloomfield.
Cordier, A. H., Kansas City.
Cordry, H. V., New Franklin.
Corlew, J. L., Columbia.
Cornett, W. E., Worchester.
Cottingham, T. A., Moberly.
Cotton, T. W., Van Buren.
Counts, H. J., Ulam.
Courtney, J. J., Birch Tree.
Cox, Walter S., Cuba.
Cox, H. A., Missouri City.
Cowan, R. B., Edgar Springs.
Cowan, W. G., Sedalia.
Cowley, G. B., Cowgill.
Cozad, F. A., Powersville.
Cozzens, E. P., Fredericktown.
Craig, T. B. M., Nevada.
Cramer, J. F., Cowgill.
Crandall, G. C., St. Louis.
Crawford, M. E., Mexico.
Creveling, H. C., St. Louis.
Crews, R. N., Williamsburg.
Cross, R. O., Kansas City.
Crossen, H. S., St. Louis.
Crowder, W. H., Kansas City.
Crowell, H. C., Kansas City.
Crowley, C. C., Richmond.
Crowson, E. L., Pickering.
Crum, J. A., Kleever.
Culp, J. C., Koshonong.
Cummings, C. C., Joplin.
Cummings, H. J., St. Louis.
Cummins, K. C., Maryville.
Cumpton, V. J., Pleasant Gap.
Cuppaidge, G. O., Moberly.
Curl, J. L., St. Louis.
Curry, Edwin R., Kansas City.

Dalgleish, G. D., Osceola.
Dallas, L. W., Hunnewell.
Dalton, H. C., St. Louis.
Dalton, Martin, Ferguson.
Dandurant, L. J., St. Joseph.
Dannaker, C. A., Kansas City.
Davidson, A. W., Poplar Bluff.
Davis, A. L., Arbela.
Davis, A. R. A., Bloomfield.
Davis, A. W., Kansas City.

Davis, C. U., Fredericktown.
Davis, G. W., Kansas City.
Davis, I. L., Granger.
Davis, J. C. B., Mountain View.
Davis, J. M., Craig.
Davis, J. R., Mokane.
Davis, L. H., St. Louis.
Davis, Robt. P., Woodruff.
Davis, Thos. J., Graham.
Davis, T. O., Maitland.
Davis, W., St. Louis.
Davis, W. B., St. Joseph.
Day, Hiram, Parnell.
Dean, Jno. McH., St. Louis.
Dean, J. W., Maryville.
Dean, L. E., Maryville.
Dearing, W. A., Jamestown.
Deatherage, W. W., St. Louis.
Deffenbaugh, W. B., St. Joseph.
Delameter, G. A., Rich Hill.
De Lorme, H. A., St. Louis.
Denman, J. I., Southwest City.
De Pew, Frank L., Altamont.
Deppen, R. C., St. Joseph.
Detweiler, A. J., Columbia.
Deutch, W. S., St. Louis.
De Vilbliss, F., Spring Garden.
Devin, J. F., Shelbyville.
Dickerson, W. L., St. Louis.
Dickerson, W. M., Renick.
Dickson, L. M., Revere.
Dines, G. L., Mine LaMotte.
Dinwiddie, F. G., Camden Point.
Dinwiddie, F. H., Higbee.
Dixon, C. H., Holliday.
Dixon, J. C. B., West Plains.
Dobson, D. A., Hunnewell.
Dodge, R. K., Polo.
Donelan, E. A., St. Joseph.
Dorsett, W. B., St. Louis.
Dorsey, B. L., St. Louis.
Doty, E. T., Anderson.
Douglas, F. M., Clinton.
Douglas, G. G., Ravenwood.
Douglas, Jno. H., Dexter.
Douglas, J. T., Ferguson.
Douglass, W. H., Benton City.
Douglass, W. H., Columbia.
Dove, O. H., Kansas City.
Dowell, G. S., Braymer.
Dowell, R. L., Chillicothe.
Doyle, W., St. Louis.
Doyle, J. M., St. Joseph.
Doyle, T. H., St. Joseph.
Drake, N. A., Kansas City.
Drew, F. W., Ethel.
Dryden, U. C., Purdin.
Duckett, T. H., Milford.
Dudley, C. R., St. Louis.
Dudley, G. F., St. Louis.
Duncan, Edward, Long Branch.
Duncan, J. H., St. Louis.
Dunham, J. D., Pattonsburg.
Dunham, S. A., Kansas City.
Dunlap, W. O., Sedalia.
Dunnavant, C. A. P., Kirkwood.
Dunsmore, J. M., St. Joseph.
Dutton, C. K., Moberly.
Dwight, K. M., Hamilton.

Eads, L. J., Hamilton.
Eastman, F. C., Winston.
Eatherton, J. W., Allenton.
Eaton, J. A., Belgrade.
Edmonds, O. R., Tina.
Edmondson, M. T., Iconium.
Edmonson, M. M., Kansas City.
Edwards, J. M., Bevier.
Edwards, W. T., West Plains.
Ehrenfest, H., St. Louis.
Ehrhardt, R. T., St. Louis.
Elam, W. T., St. Joseph.
Elbrecht, O. H., St. Louis.
Elder, A. R., Harrisonville.
Elkins, C. D., Jefferson City.
Elliott, W. H., Latham.
Ellis, A. D., Powersville.
Ellis, C. A., Maryville.
Ellis, D. C., Index.
Ellis, F. B., Garden City.
Ely, A. W., Monroe City.
Engelbrecht, Jno., Stony Hill.
Engman, M. F., St. Louis.
Enloe, C. F., Jefferson City.
Enloe, I. N., Jefferson City.
Epperly, R. G., Prairie Hill.
Epstein, M. J., St. Louis.
Eskew, De Witt, Poplar Bluff.
Estel, T. F., Altenberg.
Ettmueller, G., Jefferson City.

Eubank, A. E., Kansas City.
Eure, J. B., Brookfield.
Evans, J. S., Brookfield.
Evans, R. L., Boonville.
Evans, S. M., Bloomfield.
Evans, W. H., Sedalia.
Ewing, F. C., St. Louis.

Faber, J. E., St. Louis.
Fahlen, F., St. Louis.
Fair, S. W., Raymore.
Farber, M. J., St. Joseph.
Farmer, P. J., St. Louis.
Farrington, O. P., Clarksburg.
Farney, Hayden, M., Kansas City.
Farnsworth, A. D., Drexel.
Farrow, G. W., East Lynne.
Fassett, Chas, Wood, St. Joseph.
Ferguson, W. J., Sedalia.
Ferrel, H. E., St. Louis.
Ferrell, J. J., Owensville.
Ferrell, J. J., Hannibal.
Ferrell, R. W., Bland.
Fewel, R. B., Montrose.
Fields, Thomas, Kansas City.
Ficktenkam, H. L., St. Louis.
Finley, B. E., Charleston.
Finley, R. N., St. Louis.
Fisch, Carl, St. Louis.
Fischel, W. E., St. Louis.
Fishback, M. L., Fayetteville.
Fisher, W., St. Louis.
Fisher, J. M., Columbia.
Fleet, J. B., New Franklin.
Fleming, A. W., St. Louis.
Flynt, J. F., Molino.
Foley, E. P., Moberly.
Follin, E. D., Collins.
Ford, J. S., Linn Creek.
Ford, W. H., St. Louis.
Fore, T. P., Brookfield.
Forgrave, H. S., St. Joseph.
Forgrave, L. R., St. Joseph.
Forster, Davis, St. Louis.
Forster, O. E., St. Louis.
Forsythe, R. C., Kirkwood.
Foster, Frank W., East Lynne.
Foster, Hal, Kansas City.
Foster, J. P., Lacross.
Foster, T. M., Butler.
Fowler, S. R., St. Louis.
Fox, S. D., St. Louis.
Frankenburger, J. M., Kansas City.
Frankenthal, M. A., St. Louis.
Freeland, P. L., Joplin.
Freeman, A. B., Joplin.
French, Pinckney, St. Louis.
French, J. A., St. Joseph.
Fretwell, W. J., Unionville.
Freudenstein, W. H., St. Louis.
Freyer, B. E., Kansas City.
Freyman, A. A., Kansas City.
Frick, Wm., Kansas City.
Frick, W. J., Kansas City.
Freilingsdorf, E. H., St. Louis.
Freidman, J., St. Louis.
Fry, F. R., St. Louis.
Fritts, Otto C., Lois.
Fuchs, W. H., St. Louis.
Fulbright, C. H., St. James.
Fulkerson, P. P., St. Joseph.
Fulkerson, W. D., Trenton.
Fulton, A. L., St. Louis.
Fulton, Andrew L., Kansas City.
Fulton, Chas. M., Kansas City.
Fulton, F. H., Holt.
Funkhouser, R. M., St. Louis.
Furney, E. E., St. Louis.

Gaines, J. R., Mussell Fork.
Gaines, J. W., Kansas City.
Galbreath, J. W., Jamison.
Gallagher, J. C., St. Louis.
Gale, F. W., Marquand, Mo.
Gamble, D. C., St. Louis.
Garner, K. C., Crosstown.
Garner, R. L., Pollock.
Gathwright, J. P., Appleton City.
Gay, R. W., Ironton.
Gayler, W. C., St. Louis.
Gehrung, E. C., St. Louis.
Geiger, Chas. G., St. Joseph.
Geiger, Jacob, St. Joseph.
Geisinger, E. J., Unionville.
Geitz, H. A., St. Louis.
Gentry, E. N., Sturgeon.
Gentry, J. H., Shelbina.
Gerwig, H. E., Downing.
Gettys, H., St. Louis.
Gibbins, Wm. H., Clinton.

Gibbs, R. T., Hatton.
Gilbert, E. H., Warrensburg.
Gilleland, J. L., Olean.
Gillmore, W. L., Winona.
Gilman, D. C., Portland.
Gilmer, J. E., Piedmont.
Gilmore, E. E., Adrain.
Gisey, Gustavus A., Montrose.
Glahn, C. P., Leonard.
Glasgow, F. A., St. Louis.
Glasgow, W. C., St. Louis.
Gleaves, O. G., St. Joseph.
Glover, T. L., Spring Garden.
Goebel, A., St. Louis.
Goins, George W., Breckenridge.
Goldman, Max, Kansas City.
Goldstein, M. A., St. Louis.
Golland, M., St. Louis.
Good, C. A., St. Joseph.
Goodier, Robert H., Hannibal.
Goodloe, H., St. Louis.
Goodman, Geo., Kansas City.
Goodson, E. N., Hopkins.
Goodwin, E. J., St. Louis.
Gordon, Jas., Columbia.
Gordon, David, Chillicothe.
Gore, D. C., Marshall.
Gosney, C. W., Hardin.
Gowin, O. G., St. James.
Grace, H. M., Chillicothe.
Gradwohl, R. B. H., St. Louis.
Graham, J. K., St. Joseph.
Grant, J. M., St. Louis.
Grantham, S. A., Joplin.
Graves, Chas. H., Center.
Graves, S. C., St. Louis.
Graves, W. W., St. Louis.
Gray, A. L., St. Joseph.
Gray, C. P., Lowry City.
Gray, Henry, Prairie Hill.
Gray, L. L., St. John.
Gray, L. M., California.
Greaves, E. A., Kingsville.
Green, Jno. Jr., St. Louis.
Greene, J. V., Kansas City.
Greene, L. D., Richmond.
Greene, Chas. F., Bakersfield, Del.
Greenlee, A. R., Kansas City.
Greensfelder, Harry, Central.
Greenwood, G. W., Fredericktown.
Greer, E. O., St. Louis.
Gregory, E. H., St. Louis.
Gresham, E. F., Sedalia.
Griffin, J. M., Millville.
Griffin, P. H., St. Louis.
Griffith, Chas. E., Windsor.
Griffith, D. R., Creighton.
Griffith, J. D., Kansas City.
Grindon, Jos., St. Louis.
Gross, J. H., St. Louis.
Grosshart, Ross, Rockville.
Guhman, J. O., St. Louis.
Guhman, M. J., St. Louis.
Guss, W. C., Hannibal.

Haase, M. E., St. Louis.
Haire, Robert D., Clinton.
Hale, Joseph M., Dearborn.
Haley, O., Fredericktown.
Haley, Robert, Brookfield.
Hall, C. Lester, Kansas City.
Hall, H. R., St. Louis.
Hall Frank, Kansas City.
Hall, J. H., Potosi.
Hall, O. B., Warrensburg.
Hall, L. T., Potosi.
Haller, E. C., Harrisburg.
Halley, Geo., Kansas City.
Halliburton, W. D., Moberly.
Ham, W. J., Creve Coeur.
Hamel, Geo. F., Kansas City.
Hamilton, Robert L., Richmond.
Hamner, M. D., Bertrand.
Hampton, Joseph R., R. F. D. No. 1, Clinton.
Hanawalt, H. O., Kansas City.
Hanks, James, Brashear.
Hanna, M. A., Kansas City.
Hardaway, W. A., St. Louis.
Hardin, C. B., Kansas City.
Harnisch, H. D., St. Louis.
Harrelson, N. O., Kansas City.
Harrington, J. L., Kansas City.
Harris, D. L., St. Louis.
Harris, H. W., Winchester.
Harris, R. C., St. Louis.
Harrison, A. M., Lee's Summit.
Hartman, H. C., St. Louis.
Hartwig, O. A., St. Louis.
Harrison, J. F., Fulton.
Harrutun, M. B., Joplin.

Harwood, W. S., Renssalaer.
Hashinger, Geo. H., Kansas City.
Hasler, C. R., Winona.
Hatcher, W. H., Perryville.
Hatler, W. L., Barnett.
Hawkins, G. W., Triplett.
Hawley, N. J., St. Louis.
Hawley, T. S., St. Louis.
Haynes, Lee, Mendota,
Hays, Harry C., Kansas City.
Hays, W. H., Hannibal.
Head, Charles W., Windsor.
Heavenridge, Robert, Hannibal.
Heavenridge, Wm. E., Hannibal.
Heddens, J. W., St. Joseph.
Hedges, Frank, Jamesport.
Hedrick, C. L. V., Kansas City.
Heidorn, W. H., Bridgeton.
Helton, J. W., Green City.
Helwig, H. J., St. Louis.
Hempel, Max, St. Louis.
Henderson, F. L., St. Louis.
Henderson, W. A., Chillicothe.
Hendrix, O. B., New London.
Hennerich, J. P., St. Louis.
Henry, Fannie J., Kansas City.
Herbert, T. B., Galt.
Herchenroder, L. C., St. Louis.
Hermann, H. W., St. Louis.
Herdon, Albert S., Camden Point.
Hertic, J. C., St. Genevieve.
Hertzler, A. E., Kansas City.
Heryford, W. B., Pickering.
Herzog, G. G. A., Cuba.
Hetherington, E. M., Kansas City.
Heuer, P. J., St. Louis.
Heyer, C., St. Louis.
Hickerson, E. R., Moberly.
Hickerson, J. C., Independece.
Hicklin, O. B., New London.
Hickman, H., St. Louis.
Hickman, S. P., Ulman.
Hicks, E. S., Macks Creek.
Higgins, R. M., Webster Groves.
Higgins, G. Z., St. Louis.
Highfill, W. E., Neelyville.
Highsmith, G. R., Carrolton.
Hill, A. D., Dexter.
Hill, Howard, Kansas City.
Hill, Roland, St. Louis.
Hiller, F. B., Kahoka.
Hinch, F. E., St. Genevieve.
Hirschi, W. T., St. Louis.
Hite, H. A., Greenridge.
Hochdoerfer, D. F., St. Louis.
Hoeffer, J. P., St. Louis.
Hoffman, Phil., St. Louis.
Hoge, M. W., St. Louis.
Holland, J. S., St. Louis.
Holman, J. H., Unionville.
Holman, R. S., Boonville.
Holtgrewe, F. W., St. Louis.
Homan, Geo., St. Louis.
Hopkins, M. J., St. Louis.
Hopkins, T. A., St. Louis.
Hopper, R. L., Columbia.
Horigan, J. A., Kansas City.
Horn, A. H., Steelville.
Hornback, E. T., Hannibal.
Hornback, J. J., Metz.
Horton, W. H., Jane.
Horwitz, M. R., St. Louis.
Houck, E. F., St. Louis.
Houck, Louis, St. Louis.
Hough, C. P., Jefferson City.
Houser, F. W., California.
Houser, K., St. Louis.
Houwink, J. J., St. Louis.
Howard, A. P., St. Louis.
Howard, O. L., St. Louis.
Howard, D. F., Brookfield.
Howard, F. A., Slater.
Howell, C. F., Burlington, Junc.
Howell, J. S., Hannibal.
Howle, W. P., Charleston.
Hubbard, E. E., Kansas City.
Hubbard, Joel D., Versailles.
Hudson, T. M., Perryville.
Hughes, C. H., St. Louis.
Hulett, R. F., Rich Hill.
Hume, J. Y., Armstrong.
Humfreyville, D. L., St. Joseph.
Hunt, Jas. R., Ardmore.
Hunter, J. A., Fairfax.
Hunterson, D. L., St. Joseph.
Hurt, P. L., Boonville.
Hyde, B. C., Kansas City.
Hyde, Frank, Eminence.
Hynds, A. J., Kansas City.
Hypes, B. M., St. Louis.

Inglish, J. E., Bacon.
Inman, S. L., Valley Park.
Isenberg, H. G., Tea.
Islaub, J. W., St. Joseph.
Iuen, F. J., Kansas City.

Jackson, C. M., Columbia.
Jackson, Jabez N., Kansas City.
Jacobs, Ben, Kansas City.
Jacobs, J., Conway.
Jacobson, H., St. Louis.
James, J. A. J., St. Louis.
James, S. C., Kansas City.
Jenkins, C. E., Brookfield.
Jennings, C. A., Salisbury.
Jennings, M. D., St. Louis.
Jennings, J. Ellis, St. Louis.
Jensen, N. N., Florissant.
Jerard, H., Pleasant Hill.
Jerowitz, H. D., Kansas City.
Johnson, E. A., Nevada.
Johnson, E. H., St. Louis.
Johnson, F. M., Gorin.
Johnson, F. P., St. Louis.
Johnson, G. A., Holliday.
Johnson, H. C., Meadville.
Johnson, H. McC., St. Louis.
Johnson, J. H., Kansas City.
Johnson, J. McBride, West Plains.
Johnson, L. C., Centerview.
Johnson, R. L., Rolla.
Johnson, W. E., Warrensburg.
Johnson, Wm. E., Lois.
Johnston, Wm., St. Louis.
Jonas, E., St. Louis.
Jones, B. C., Poplar Bluff.
Jones, H. S., Linden.
Jones, H. W., St. Louis.
Jones, J. T., Queen City.
Jones, K. P., Kansas City.
Jones, L. J., Linden.
Jones, M. D., St. Louis.
Jones, O. F.. Kansas City.
Jordan, A. P., St. Louis.
Jordon, J. E., Hallsville.
Jose, J. E., Belle.

Kabler, P. L., Hannibal.
Kaltenbach, E., Craig.
Kane, R. Emmett, St. Louis.
Karges, C., St. Louis.
Kay, Z. L., Joplin.
Keber, J. B., St. Louis.
Keeble, R. R., St. Louis.
Keener, Wm. M., Jamesport.
Keller, R. G., Freeman.
Kelley, R. Q., Versailles.
Kelly, Sam, Sedalia.
Kelso, R. S., Joplin.
Keith, W., St. Louis.
Kendall, W. A., Poplar Bluff.
Kenney, W. L., St. Joseph.
Kerlagon, C. C., Bellview.
Kessenger, J. C., Milan.
Kessler, E. H., St. Louis.
Kessler, O. C., Ravenwood.
Kessler, S. F., St. Joseph.
Ketchum, C. M., Carthage.
Kieffer, A. R., St. Louis.
Kier, W. F., St. Louis.
Kimsey, J. T., Bloomington.
Kincheloe, M. B., Joplin.
King, R. M., St. Louis.
Kinner, Wm., Clayton, R. F. D. No. 1.
Kirkpatrick, Harry E., Mendon.
Kirschner, P. J., St. Joseph.
Kirschner, W. C. G., St. Louis.
Klein, S., St. Louis.
Klueber, H. C., California.
Knabb, F. P., Valley Park.
Knoche, P. J., Kansas City.
Knott, Isaiah, Keytesville.
Knott, W. H., Hume.
Knott, Minerva, Sedalia.
Koch, C. D., Maryville.
Koch, O. W., Des Peres.
Koetter, A. F., St. Louis.
Kolbenheyer, F., St. Louis.
Krebs, F. J. V., St. Louis.
Krebs, G. A., St. Louis.
Kouns, D. H., Tuscumbia.
Krenning, W. J., St. Louis.
Kreiger, J. A., St. Louis.
Kuhn, D., St. Louis.
Kuhn, Wm. F., Kansas City.
Kyger, J. W., Kansas City.

Lahmer, Ira B., Kansas City.
Laidley, L. H., St. Louis.
Lancaster, H. W., Rich Hill.

Landaker, E., Collins.
Landsdale, John M., Kansas City.
Lane, J. W., Linneus.
Langan, W. J., St. Louis.
Lange, A. F., St. Louis.
Lanier, Herbert, Martinsburg.
Lanning, J. H., Kansas City.
Lanning, R. W., St. Genevieve.
Lantz, G. N., Brookfield.
Lanyon, W. H., Joplin.
Lare, H. S. P., St. Louis.
Larew, J. L., St. Louis.
Large, S. D., Hopkins.
Larrabee, J. A., Barnard.
La Rue, Harry, Dexter.
Latham, H. W., Latham.
Laurazana, Ligni, Kansas City.
Lawrence, W. S., St. Louis.
Leach, Chas. F., Feurisville.
Leach, H. T., Elston.
Lebrecht, J. C., St. Louis.
Leighton, W. E., St. Louis.
Lee, B. J., Norborne.
Lee, C. H., Fayette.
Lee, Herbert, St. Joseph.
Leeper, C. C., Braymer.
Lemen, J. R., St. Louis.
Leonard, H. O., Kansas City.
Leonard, Jno. W., St. Joseph.
Leonard, W. H., Kansas City.
Leonard, P. I., St. Joseph.
Lester, Chas. H., Kansas City.
Lewis, B., St. Louis.
Lewis, Chas., St. Louis.
Lewis, C. O., Fayette.
Lewis, J. K., Kansas City.
Lewis, Nannie P., Kansas City.
Lichtenberg, Jos., Kansas City.
Lightfoot, Frank, Excelsior Springs.
Lightner, C. R., St. Louis.
Lindley. W. T., Hamilton.
Link, J. J., St. Louis.
Lionberger, J. R., St. Louis.
Lockwood, T. F., Butler.
Lockwood, W. A., Conway.
Loeb, Clarence, St. Louis.
Loeb, H. W., St. Louis.
Lofton, E. A., Laddonia.
Loftus, W. V., St. Louis.
Logan, James E., Kansas City.
Long, J. M., St. Louis.
Long, O., Harrisburg.
Longacre, C. E., Freeman.
Lopp, J. E., Jefferson City.
Love, J. G., Sedalia.
Lowrey, Ernest, Excelsior Springs.
Lowrey, J. M., Centerville.
Loyd, T. B., Paris.
Ludwig, C. V. F., St. Louis.
Luedeking, R., St. Louis.
Luscher, L. W., Kansas City.
Lutman, H. M., Versailles.
Luton, L. S., St. Louis.
Lutz, F. J., St. Louis.
Luscher, L. W., Kansas City.
Lyman, H., St. Louis.
Lyle, A. E., Butler.
Lynch, G. D., Tindall.

Mackey, A. H., Gorin.
Magee, W. K., Moberly.
Mairs, E. J., Newton.
Manahan, J. H., Kansas City.
Mangus, C. W., Moberly.
Mangus, T. D., Clark.
Mann, A. W., Oak Grove.
Manning, L. R., Brewer.
Mardorf, W. C., St. Louis.
Mark, E. G., Kansas City.
Marks, H., St. Louis.
Marsh, J. T., Liberty.
Marsh, J. W., Tipton.
Marshall, Ira A., Ironton.
Martin, A. J., East Prairie.
Martin, H. L., Kansas City.
Martin, J. B. Jr., Lohman.
Martin, J. B. Sr., Russellville.
Martin, W. H., Kahoka.
Martin, T. A., St. Louis.
Martin, Z. T., Fulton.
Marx, Ella, St. Louis.
Mason, J. W., Brookfield.
Mathews, L. I., Joplin.
Matthews, F. H., Liberty.
Max, C. O. C., St. Louis.
Mayes, G. I., Joplin.
Mayfield, L. S., Puxico.
Maynard, Geo. K., Arbelo.
Meisenbach, A. H., St. Louis.
Menees, George W., Clinton.

Melvin, J. M., St. Louis.
Menestrina, J. F., St. Louis.
Meng, E. R., St. Louis.
Metcalf, W. A., Steelville.
Metlock, Clarence, Steelville.
Meyer, A. G., St. Genevieve.
Meyer, H. H., St. Louis.
Middleton, James, Kansas City.
Milam, B. J., Macon.
Miles, E. D., Osceola.
Miller, Abram, Kansas City.
Miller, A. B., Macon.
Miller, E. H., Liberty.
Miller, E. M., Mound City.
Miller, G. W., Joplin.
Miller, Hugh, Kansas City.
Miller, J. J., St. Louis.
Miller, James M., Montrose.
Miller, J. W., Mound City.
Miller, S. H., Joplin.
Miller, S. W., Norborne.
Miller, W. H., Macon.
Miller, W. McNab., Columbia.
Mills, Sherman, Macks Creek.
Milnes, G. S., Milan.
Minnick, A. G., Locksprings.
Minton, J. R., Bigelow.
Mitchell, E. H., Pottersville.
Mitchell, E. L., Lancaster.
Mitchell, G. B., Kansas City.
Mitchell, J., Lookout.
Mitchell, Jno. T., Kansas City.
Mitchell, W. F., Lancaster.
Moffitt, J. H., Redford.
Montgomery, E. A., Unionville.
Montgomery, J. M., Lowndes.
Montgomery, J. S., Milan.
Montgomery, W. E., Kansas City.
Moore, B. W., St. Louis.
Moore, C., St. Marys.
Moore, George M., Linn Creek.
Moore, H. M., St. Louis.
Moore, G. A., Dunlap.
Moore, J. G., St. Louis.
Moore, J. H., Centerville.
Moore, J. W., St. Louis.
Moore, Milton H., Dearborn.
Moore, O. L., Jefferson City.
Moore, R. D., Central.
Moore, T. E., Springfield.
Moore, W. G., St. Louis.
Moorehouse, Emma, Appleton City.
Morfit, J. C., St. Louis.
Morganstein, H. J., Weingarten.
Morris, C. C., St. Louis.
Morris, Robert H., Linneus.
Morris, Wm. C., Kansas City.
Morriss, H. A., St. Louis.
Morrison, J. B., Maryville.
Morrison, W. Scott, Rushville.
Morrow, C. J., Kansas City.
Morrow, Wm. F., Kansas City.
Morton, Daniel, St. Joseph.
Morton, D. F., Perryville.
Mosby, C. V., St. Louis.
Mosher, Geo. C., Kansas City.
Moss, F. M., Paris.
Moss, Woodson, Columbia.
Mott, Jno. S., Kansas City.
Mott, J. W., Poplar Bluff.
Moulder, J. D., Puxico.
Mount, R. L., Mirable.
Mudd, H. G., St. Louis.
Mueller, E., St. Louis.
Mueller, V. J., St. Louis.
Murphy, F. E., Kansas City.
Murphy, J. C., St. Louis.
Murphy, R. Brent, St. Louis.
Murray, Elmore, Parkville.
Murray, L. F., Holden.
Musson, E. H., Rockingham.
Myer, J. S., St. Louis.
Myer, Max, Columbia.
Myers, G. T., Macks Creek.
McAdam, J. D., Prairie Hill.
McAlester, A. W., Columbia.
McAllister, W. A., Centralia.
McBride, C. E., Webb City.
McCabe, L. L., St. Louis.
McCall, G. D., Fulton.
McCall, H. B., Kansas City.
McCall, W. K., Worchester.
McCandless, O. H., Kansas City.
McCandless, W. A., St. Louis.
McClanahan, J. M., Guilford.
McClure, J., St. Louis.
McComas, A. R., Sturgeon.
McComb, J., Lebanon.
McComb, J. A., Lebanon.
McComb, J. L., Kenoma.
McCrea, Maggie, Kansas City.
McCullouc, George, Kearney.

McCullum, R. W., Center.
McDonald, Chett, Kansas City.
McDonald, Park L., Kansas City.
McEwen, Oliver, Shanondale.
McGill, W. J., St. Joseph.
McGlothan, A. B., St. Joseph.
McIntyre, A. J., Hannibal.
McKay, H. S., St. Louis.
McKee, Jos. W., Kansas City.
McKee, L. D., St. Francisville.
McKensie, D. H., Lesterville.
McLean, M. H., St. Louis.
McMichael, A., Rockport.
McMurry, M. C., Paris.
McNarry, C. B., Rockville.
McNeil, Geo. E., Sedalia.
McNutt, W. B. A., Monroe City.
McPheeters, Wm., St. Louis.
McQuade, H. D., Kansas City.
McVey, Newton, Kansas City.

Nally, H., Cainsville.
Nash, G. A., Maryville.
Nasse, E., Sedalia.
Neff, F. C., Kansas City.
Neff, R. L., Joplin.
Nesbitt, E. P., Sheridan.
Neuhoff, F., St. Louis.
Newcomb, Phil, St. Louis.
Newell, M. E., St. Louis.
Newhouse, Stanley, Kansas City.
Newland, C. W., Bogard.
Newman, C. W., Hinton.
Newman, L. E., St. Louis.
Nichols, D. J., West Plains.
Nichols, G. M., Higbee.
Nicholson, C. M., St. Louis.
Nicks, H. G., St. Louis.
Nietert, H. L., St. Louis.
Nieweg, J. W., Lois.
Nifong, F. G., St. Louis.
Nixdoorf, P. A., Pleasant Farm.
Noel, Frank, Unionville.
Norman, J. B., California.
Norris, E. J., St. Louis.
Norris, T. J., Macon.
Norris, W. A., Columbia.
Norwine, J. J., Poplar Bluff.
Norwood, W. W., Russellville.
Noyes, Guy L., Columbia.
Nunn, G. G., Joplin.

O'Connor, C., Kansas City.
O'Dell, T. T., Ellington.
O'Donnell, Alfred, Kansas City.
Ohmann-Dumesnil, A. H., St. Louis.
O'Reilly, R. J., St. Louis.
Orr, C. J., St. Louis.
Osborne, J. F., Henry.
Outten, W. B., St. Louis.
Oven, T. P., Brookfield.
Overholser, M. P., Harrisonville.
Overstreet, W. C., Sedalia.
Owen, H. I., Fulton.
Owens, F. C., Agency.
Owens, I. M., Belle.
Owens, R. J., Mill Spring.
Owens, S. P., Moberly.
Owens, Wm., Oak Dale.
Ozias, C. O., Warrensburg.

Padberg, Louis R., St. Louis.
Palmer, W. C., Dayton.
Parker, O. H., Kansas City.
Parkhurst, C. L., Hustonia.
Parks, Henry, Dunksburg.
Parrish, E. E., Memphis.
Parrish, A. E., Memphis.
Parrish, J. C., Vandalia.
Patterson, F. A., St. Joseph.
Patterson, W. R., Tipton.
Patton, C. O., McFall.
Paul, T. M., St. Joseph.
Payne, H. C., Paris.
Payne, T. J., Fayette.
Pearse, H. E., Kansas City.
Perkins, J. M., Lebanon.
Perkins, Jno. W., Kansas City.
Pettijohn, A. C., Brookfield.
Pettijohn, N. J., Kansas City.
Pettit, L. M., Greenville.
Pfeiffenberger, J. M., St. Louis.
Pfister, J. D., Fern Ridge.
Phillips, Elden, Bloomfield.
Phillips, G. M., Commercial.
Pierce, H. M., St. Louis.
Piett, K. S., Chillicothe.
Pierpont, J. E., Skidmore.
Pifer, J. D., Joplin.
Pile, O. F., Memphis.
Pim, L. T., St. Louis.
Pitman, John, Kirkwood.
Pitney, Orville, Forest Green.

Pitts, Barton, St. Joseph.
Platter, A. E., Memphis.
Poague, Samuel A., Clinton.
Pollard, D. A., Barnard.
Pollard, H. M., Shelbina.
Pollard, M. M., Guilford.
Pollmann, L. P., St. Louis.
Popejoy, H. R., High Point.
Popper, Morris, St. Louis.
Porter, Allen, Kansas City.
Porter, D. R., Kansas City.
Porter, J. E., Knobnoster.
Porter, Wm., St. Louis.
Porth, J. P., Jefferson City.
Post, M. H., St. Louis.
Postelwaite, J. A., Tarkio.
Potter, Geo. C., St. Joseph.
Potter, T. E., St. Joseph.
Potts, Jerome D., Boonville.
Powell, C. H., St. Louis.
Prichard, J. B., St. Louis.
Printz, Herman, St. Louis.
Prowell, J. D., Longwood.
Punton, John, Kansas City.
Putman, B. B., Marceline.
Putman, Ola, Marceline.

Quigley, B. T., Mound City.

Radamacher, J. J., Meta.
Ragan, S., New London.
Rains, N. J., Knobnoster.
Ralph, A. B., Missouri City.
Ramsey, R. D., Garden City.
Randle, H. T., Clayton.
Rassieur, L., St. Louis.
Rathbone, F. W., Kansas City.
Ravold, A., St. Louis.
Reagan, C. W., Macon.
Reder, Francis, St. Louis.
Redman, Spence, Platte City.
Redmon, S. H., Tipton.
Reed, Wm. H., Kansas City.
Reid, F., Humphreys.
Reid, H, L., Charleston.
Reid, Florence Janet, Hannibal.
Reiley, J. F., West Plains.
Reilley, Wm., St. Louis.
Remme, C. F., St. Louis.
Renaud, E. C., St. Joseph.
Renfroe, J. H., Fredericktown.
Reyling, F. L., Kansas City.
Reynolds, J. B., St. Joseph.
Reynolds, S. H., Maplewood.
Rhoades, H. A., Foster.
Rhoads, M. H., Austin.
Rice, D. F., St. Louis.
Rice, F. D., Lucerne.
Rice, John J., Kearney.
Rice, John M., Columbus.
Rice, J. T., Liberty.
Richards, E. E., Tarkio.
Richards, T. C., Browns Station.
Richardson, K. B., Kansas City.
Ridge, I. M., Kansas City.
*Ridings, J. C., Cairo.
Riegle, D. H., Kansas City.
Riesmeyer, L. T., St. Louis.
Riley, R. D., St. Louis.
Riley, C. M., Alton, Ills.
Ring, Frank, St. Louis.
Rinninger, Will, St. Louis.
Ritter, C. A., Kansas City.
Rhoads, M. H., Austin.
Roberts, Clarence, Kansas City.
Roberts, C. S., Kansas City.
Robertson, W. M., St. Louis.
Robertson, J. A., Kansas City.
Robertson, J. M., Latham.
Robinson, A. C., St. Louis.
Robinson, E., Kansas City.
Robinson, J. F., Nevada.
Robinson, J. L., Kansas City.
Rodes, N. R., Mexico.
Rogers, J. C., Kansas City.
Rogers, W. H., Asbury.
Rohlfing, C. G., St. Louis.
Rohlfing, L. C., St. Louis.
Rohlfing, H. A. L., St. Louis.
Rohlfing, L. C., St. Louis.
Roland, W. P., Bevier.
Rootes, G. F., Tebbitts.
Roseborough, F. H., St. Louis.
Rosenwald, Leon, Kansas City.
Ross, J. B., St. Louis.
Ross, L. C., Winona.
Rothstein, H. M., St. Louis.
Rothwell, C. A., Mexico.
Rothwell, J. H., Liberty.
Rowe, H. J., Willow Springs.
Rowe, J. M., Charleston.
Rowe, Samuel B., Rolla.

Rowell, H., Kearney.
Roy, F. K., Hagers Grove.
Royer, B. F., Clearmont.
Rule, J. B., St. Louis.
Rumbold, F. M., St. Louis.
Rush, G. B., Macon.
Rush, Wm., St. Louis.
Russell, E. L., Kansas City.
Russell, J. W., Longtown.
Russler, J. J., St. Louis.
Rutledge, G. M., St. Genevieve.
Ryan, F. M., Quitman.

Sampson, J. H., St. Joseph.
Sams, Wm. M., Kansas City.
Samuels, L., Bowdry.
Sanders, St. Elmo, Kansas City.
Sandzen, Carl, Kansas City.
Sargent, D. A., Hopkins.
Sauer, W. E., St. Louis.
Saunders, E. W., St. Louis.
Sawyer, J. F., Kansas City.
Saxl, E., St. Louis.
Say, W. J., St. Louis.
Sayler, H. L., Elmo.
Schauffler, E. W., Kansas City.
Schauffler, Robt. McE., Kansas City.
Scherck, H. J., St. Louis.
Schisler, E., St. Louis.
Schleiffarth, C. W., St. Louis.
Schleiffarth, E. L., St. Louis.
Schlossstein, A., St. Louis.
Schlossstein, A. G., St. Louis.
Schloz, P., St. Louis.
Schlueter, R. E., St. Louis.
Schmalhorst, D. E., St. Louis.
Schmid, W. F., St. Joseph.
Schmidt, Richa, Hannibal.
Schofield, L. J., Warrensburg.
Schooley, R. C., Robins.
Schroeder, A. H., Braymer.
Schuchat, W. L., St. Louis.
Schuck, Phil, St. Louis.
Schulte, F. A., St. Louis.
Schuchat, W. L., St. Louis.
Schudde, Otto N., Vienna.
Schutz, W. H., Kansas Citv.
Schwab, S. I., St. Louis.
Schwab, B. C., Ardmore.
Schwarz, H., St. Louis.
Schwarze, A., St. Louis.
Scott, J. M., St. Louis.
Scott, J. N., Kansas City.
Scott, J. U., Harrisonville.
Seba, John D., Bland.
Sebastain, J. P. Patterson.
Seevers, John, Osceola.
Sellers, M. L., Anderson.
Selvidge, L. B., Collins.
Senseney, E. M., St. Louis.
Sevier, Robert, Richmond.
Sevier, R. E., Liberty.
Sexton, M. P., Kansas City.
Seybold, J. W., Poplar Bluff.
Shankland, William M., Clinton.
Shanklin, B., St. Louis.
Shanks, A. L., Hannibal.
Shapleigh, J. B., St. Louis.
Sharp, Wm. L., Mt. Steare.
Sharpe, N. W., St. Louis.
Shattinger, C., St. Louis.
Shawhan, R. C., Hale.
Sheetz, Robert, Orrick.
Sheets, C. C., Greenville.
Sheldon, G. H., St, Louis.
Sheldon, S., Trenton.
Sheldon, T. J., Lowry City.
Shelton, M. C., Joplin.
Sherer, Jos. W., Kansas City.
Shields, W. B., St. Louis.
Shirk, W. S., Sedalia.
Shobe, H. G., Paris.
Shoemaker, W. A., St. Louis.
Short, Martha J., Rolla.
Shotwell, Chas. B., Richmond.
Shrader, E. W., Moberly.
Shuck, L. I., Nelson.
Shutt, C. H., St. Louis.
Shuttee, H. C., West Plains.
Shy, M. P., Knobnoster.
Sibley, F. C., St. Louis.
Sieving, H. J. C., St. Louis.
Simmons, B. B., Oregon.
Simon, J. H., St. Louis.
*Simpson, A. E., Charleston.
Simpson, A. J., Chillicothe.
Simpson, J. T., Holden.
Simpson, William J., Weston.
Simpson, W. R., Chillicothe.
Singleton, J. M., Kansas City.
Sisson, W. B., Kahoka.
Slaughter, S. C., Fredericktown.

Slayden, J. L., Dexter.
Slayden, Robt. T., Kansas City.
Sloan, Robt. T., Kansas City.
Sluder, G., St. Louis.
Smiley, F. R., Boonville.
Smith, Avis E., Kansas City.
Smith, B. F., Southwest City.
Smith, Ben H., St. Joseph.
Smith, B. T., Newburg.
Smith, Elsworth, St. Louis.
Smith, E. S., Macon.
Smith, Ira, Austin.
Smith, J. C., St, Joseph.
Smith, J. C., St. Louis.
Smith, J. D., Shelbina.
Smith, J. H., Kansas City.
Smith, J. M., Orla.
Smith, J. M. P., Poplar Bluff.
Smith, J. W., Fulton.
Smith, J. W., St. Louis.
Smith, Jas, W., Richmond.
Smith, M. A., Gallatin.
Smith, Paul C. Fayette.
Smith, R. J., Appleton City.
Smith, R. M., Kansas City.
Smith, W. S., Belgrade.
Snider, J. S., Kansas City.
Snodgrass, C. A., St. Louis.
Snyder, A. R., Joplin.
Son, E. R., Osage City.
Songer, H. E., Jamesport.
Soper, H. W., St. Louis.
Southern, J. N., Atlanta.
Spain, K. C., St. Louis.
Spaulding, Chas, L., Kansas City.
Spears, Robt. S., West Plains.
Spencer, F. H., St. Joseph.
Spencer, H. N., St. Louis.
Spiegalhalter, J., St. Louis.
Spooner, E. W., St. Louis.
Spotts, B. W., Marshall.
Spriggs, M. L., Joplin.
Spurgon, M. E., Red Bird.
Stamey, J. L., Joplin.
Standley, E. D., Linneus.
Standley, Kathryn, Brookfield.
Standley, Z. T., Laclede.
Statts, E. F., Beaman.
Stauffer, W. H., St. Louis.
Steedman, J. G., St. Louis.
Steer, Justin, St. Louis.
Stephens, Nannie A., Kansas City.
Steven, B. N., Chillicothe.
Stevens, C. D., St. Louis.
Stewart, E. L., Kansas City.
Stewart, Floyd, St. Louis.
Stewart, J, B., Clarksburg.
St. John, O., Pineville.
St. John, R. L., Howland.
Stocking, L. C., St. Louis.
Stockwell, B. E., St. Louis.
Stoffel, R. J., St. Louis.
Story, C. A., Diehlstadt.
*Stowers, J. P., Holt.
Stratton, C. D., Rothville.
Stratton, C. S., Roscoe.
Strauss, Leon, St. Louis.
Street, St. Clair, Kansas City.
Stratton, C. D., Rothville.
Strickland, W. R., Rockport.
Stuckle, W. P., Clyde.
Suddarth, C. H., Smithville.
Suggett, O. L., St. Louis.
Sullivan, E. W., Osceola.
Summa, Hugo, St. Louis.
Summa, H. H., St. Louis.
Suter, F., Perry.
Sutter, O., St. Louis.
Sutton, Bertha E., Trenton.
Sutton, F. L., Sedalia.
Sutton, N. E., Trenton.
Swaney, W. D., Linkville.
Swope, W. A., Wheeling.

Tadlock, H. L., Kearney.
Tainter, Paul, Freeburg.
Talbot, Ambrose, Kansas City.
Talbot, E. S., Appleton City.
Talbot, Hudson, St. Louis.
Tanquary, J. H., St. Louis.
Tatum, Harry, Brunswick.
Taussig, A. E., St. Louis.
Taussig, F. J., St. Louis.
Taylor, L. G., Kansas City.
Taylor, W. E., Ohio.
Taylor, W. F. S., Poplar Bluff.
Teel, A. W., Vincennes, Iowa.
Teel, S. M., Prairie Home.
Temple, C. H., Rockford.
Temple, J. W., Eldon.
Terril, J. O. Vandalia.
Tesson, N. A. G., Kansas City.

Thomas, A. W., Kansas City.
Thomas, C. E., St. Joseph.
Thompson, G. B., Kansas City.
Thompson, Geo. R., St. Joseph.
Thompson, H. A., Lanton.
Thompson, James. Kansas City.
Thompson, J. H., Kansas City.
Thompson, J. M., Meadville.
Thompson, R. J., Norborne.
Thompson, W. G., Holden.
Thompson, W. S., Armstrong.
Thornton, J. E., Columbia.
Thornton, T. R., Kansas City.
Thorpe, A. V., Jamestown.
Thrailkill, E. H., Kansas City.
Thrope, J. L., Jefferson City.
Thurman, E. J., Fenton.
Tiedemann, E. F., St. Louis.
Tiffany, F. B., Kansas City.
Tiller, J. A., Leora.
Tilton, A. L., Leslie, S. Dakota.
Todd, J. H., Maryville.
Todd, L. A., St. Joseph.
Toney, G. W., Piedmont.
Townsend, J. A., Unionville.
Townsend, J. P., Potosi.
Tremaine, G. W., Tavern.
Trimble, Wm. K., Kansas City.
Triplett, J. S., Harrisonville.
Trippier, F. L., College Mound.
Troutman, C. A., St. Louis.
Tucker, A. J., Sedalia.
Tuholske, H., St. Louis.
Tull, H. W., Carrollton.
Tupper, P. Y., St. Louis.
Tureman, H. G., Kansas City.
Turnbaugh, T. B., Bloomfield.
Tuttle, G. M., St. Louis.
Tygart, C. A., St. Joseph.
Tyler, R. S., Densburg.
Tyree, W. C., Kansas City.
Twyman, G. T., Independence,

Valle, J. F., St. Louis.
Vandiever, C. E., Hannibal.
Van Eman, F. T., Kansas City.
Van Hook, H. M., St. Louis.
Van Meter, A., Lamar.
Vasterling, P. F., St. Louis.
Vaughan, H. C., Shelbina.
Vaughan, J. W., St. Louis.
Veidt, E. J., Rockville.
*Vernon, C. T., Mexico.
Vernon, G. W., Dexter.
Vessells, F. M., Perryville.
Vitt, Rudolph, St. Louis.
Vogt, G. W., St. Louis.
Vogt, W. H., St. Louis.
Vollmer, P., St. Louis.
Von der Au, O. L., St. Louis.
Von Quast, E., Kansas City.

Waddell, Susan C., Kansas City.
Wale, D. V., Carthage.
Wall, A. H., Kansas City.
Walker, G. D., Eldon.
Walker, H. L., St. Joseph.
Walker, R. P., Belton.
Wallace, C. H., St. Joseph.
Wallace, E. J., Centralia.
Wallace, G. R., Bertand.
Wallace, J. E., Gantt.
Wallace, J. S., Brunswick.
Wallace, W. S., Excelsior Springs.
Wallis, F. C., Maryville.
Wallis, J. R., Montrose.
Wallis, W. M., Maryville.
Walter, Fred, Perry.
Walter, W. F., Englewood.
Waltzen, S. W., Urich.
Ward, E. P., St. Louis.
Ward, T. J., Birmingham.
Warden, J. L., Independence.
Ware, Chas., St. Louis.
Waterman, J. A., Breckenridge.
Wates, Wm., New London.
Watkins, C. H., Joplin.
Watson, B. F., Kansas City.
Watts, C. W., Fayette.
Webster, C. L., Trenton.
Wedding, E. V., Kansas City.
Weeb, W. E., Macon.
Weinsberg, H. A., St. Louis.
Weiterer, H. L., St. Louis.
Welch, A. J., Kansas City.
Welch, J. F., Salisbury.
Welch, W. A., Callao.
Well, Wm., Versailles.
Wells, H. P., St. Louis.
Wessler, F. W., St. Louis.
Whaley, Roy, Browning.
Whaley, D. L., Browning.

Wheat, B. F., Hale.
Wheeler, B. H., Kansas City.
Wheeler, J. F., Herndon.
Wheeler, W. S., Kansas City.
Whelpley, H. M., St. Louis.
Whippley, N. L., Pleasant Gap.
White, Alex, Lakenan.
White, J. A., New Franklin.
White, W. L., Springhill.
Whittington, W. L., St. Joseph.
Wiatt, W. S., East St. Louis, Ill.
Wicks, F. M., Center.
Widner, A. W., Newton.
Wiener, M., St. Louis.
Wichmann, H. L., St. Louis.
Wiles, W. T., Bakerfield.
Wilfley, O. S., Millersburg.
Wilkes, B. A., St. Louis.
Wilkerson, J. O., Polo.
Will, S. J., Mehlville.
Williams, D. E., Osceola.
Williams, Ira, Maitland.
Williamson, C. W., Poplar Bluff.
Williamson, J. W., St. Louis.
Willis, H. T., Shelbina.
Willitt, W. C., Kansas City.
Wilson, A., St. Louis.
Wilson, A. H., Kansas City.
Wilson, Dora G., Kansas City.
Wilson, Eli, Leora.
Wilson, G. S., Fortuna.
Wilson, John, Kansas City.
Wilson, J. P., Holt.
Wilson, R. E., St. Louis.
Wilson, R. P. C., Platte City.
Winn, John W., Platte City.
Winchester, A. N., Joplin.
Windsor, A., Poplar Bluff.
Windsor, N. W., St. Louis.
Wingo, T. B., Dexter.
Winn, Marvin, Saverton.
Winningham, W. H., Edinburg.
Winters, H. S., Acorn Ridge.
Winter, W., St. Louis.
Winters, M. S., Asherville.
Witherspoon, T. C., St. Louis.
Witter, W. L., Milan.
Woldridge, H. L., Breckenridge.
Wolf, I. J., Kansas City.
Wolfner, H. L., St. Louis.
Woltzen, S. W., Urich.
Wood, A. G., Lentner.
Wood, A. M., Lentner.
Wood, E. A., Sedalia.
Wood, J. T., Harrisburg.
Wood, L. M., Pleasant Hill.
Wood, N. P., Independence.
Wood, W. H., Brownfield.
Woodruff, F. E., St. Louis.
Woods, W. S., Elmo.
Woodson, C. R., St. Joseph.
Woolsey, N. B., Braymer,
Wren, J. A., Woodlandville.
Wright, C. O., Poplar Bluff.
Wright, Leo S., Lowrey City.
Wright, J. B., Trenton.
Wright, U. S., Fayette.
Wyer, H. G., Kirkwood.
Wysong, W. L., Missouri City.

Yancey, E. F., Sedalia.
*Yates, J. R., Joplin.
Yates, Martin, Fulton.
Yates, W. V., Callao.
Young, D. H., Fulton.
Young, H. W., St. Louis.
*Young, Robert E., Jefferson City.

Zahorsky, Jno., St. Louis.
Zey, E. G., Butler.
Zilman, A. W., Indian Grove.
Zoll, F. C., Warrensburg.
Zwart, B. H., Kansas City.

COUNTY SOCIETIES IN AFFILIATION WITH THE STATE MEDICAL ASSOCIATION.

COUNTY.	PRESIDENT.	ADDRESS OF PRESIDENT.	SECRETARY.	ADDRESS OF SECRETARY.
Atchison	E. E. Richards	Tarkio	A. McMichael	Rockport.
Audrain	Robert W. Berry	Mexico	C. A. Rothwell	Mexico.
Bates	A. E. Lyle	Butler	E. N. Chastian	Rich Hill.
Boone	J. E. Thornton	Columbia	W. A. Norris	Columbia.
Buchanan	P. I. Leonard	St. Joseph	Chas. W. Fassett	St. Joseph.
Butler	W. E. Highfill	Neeleyville	J. J. Norwine	Poplar Bluff.
Caldwell	C. C. Leeper	Braymer	Tinsley Brown	Hamilton.
Callaway	D. H. Young	Fulton	J. F. Harrison	Fulton.
Camden	G. M. Moore	Linn Creek	G. T. Myers	Macks Creek.
Carroll	W. C. Baird	Bogard	R. F. Cook	Carrollton.
Cass	R. D. Ramey	Garden City	J. S. Triplett	Harrisonville.
Chariton	M. B. Austin	Brunswick	C. A. Jennings	Salisbury.
Clark	H. W. Harris	Winchester	A. C. Bridges	Kahoka.
Clay	L. J. Jones	Linden	F. H. Matthews	Liberty.
Cole	R. E. Young	Jefferson City	G. Ettmueller	Jefferson City.
Cooper	J. D. Potts	Boonville	R. L. Evans	Boonville.
Crawford	W. A. Metcalf	Steeleville	A. H. Horn	Steelville.
Current River	J. A. Chilton	VanBuren	Frank Hyde	Eminence.
Daviess	W. N. Keener	Jamesport	M. A. Smith	Gallatin.
Grundy	J. A. Asher	Trenton	W. D. Fulkerson	Trenton.
Henry	Jno. H. Britts	Clinton	F. M. Douglas	Clinton.
Holt	B. T. Quigley	Mound City	J. F. Chandler	Forest City.
Howard	A. W. Moore	Fayette	C. W. Watts	Fayette.
Howell	J. W. Bingham	Pottersville	H. C. Shuttee	West Plains.
Iron	W. R. Gay	Ironton	Ira A. Marshall	Ironton.
Jackson	J. W. Kyger	Kansas City	E. L. Chambliss	Kansas City.
Jasper	R. L. Neff	Joplin	J. D. Pifer	Joplin.
Johnson	M. P. Shy	Knobnoster	E. H. Gilbert	Warrensburg.
John T. Hogden	T. H. Duckett	Harrisonville	T. C. Boulware	Foster.
Laclede	J. M. Billings	Lebanon	J. A. McComb	Lebanon.
Linn	G. N. Lantz	Brookfield	D. F. Howard	Brookfield.
Livingston	R. Barney	Chillicothe	H. M. Grace	Chillicothe.
McDonald,	E. F. Doty	Anderson	M. L. Sellers	Anderson.
McDowell Dist	John D. Seba	Bland	J. W. Nieweg	Owensville.
Macon	E. S. Smith	Macon	G. B. Rush	Macon.
Madison	G. W. Greenwood	Fredericktown	C. U. Davis	Fredericktown
Maries	O. C. Fritts	Lois	O. N. Schudde	Vienna.
Marion	J. S. Howell	Hannibal	F. Janet Reied	Hannibal.
Mercer	H. P. Chesmore	Princeton	C. R. Buren	Princeton.
Miller	S. P. Hickman	Ulman	G. D. Walker	Eldon.
Mississippi	A. J. Martin	East Prairie	W. P. Howle	Charleston.
Moniteau	J. B. Stewart	Clarksburg	W. R. Patterson	Tipton.
Monroe	G. B. Dysart	Paris	W. B. A. McNutt	Monroe City.
Morgan	J. D. Hubbard	Versailles	J. T. Beale	Versailles.
Nodaway	J. A. Larrabee	Barnard	F. R. Anthony	Maryville.
Newton	J. W. Lamson	Neosho	Horace Bowers	Neosho.
Pettis	W. C. Overstreet	Sedalia	W. S. Shirk	Sedalia.
Phelps	W. H. Breuer	St. James	S. L. Baysinger	Rolla.
Platte	R. P. Davis	Woodruff	G. C. Coffey	Platte City.
Putnam	C. H. Carryer	Hartford, Mo	T. A. Townsend	Unionville.
Ralls	O. B. Hickley	New London	J. D. Downing	New London.
Randolph	D. A. Barnhart	Huntsville	S. C. Adams	Huntsville.
Ray	Jas. W. Smith	Richmond	C. B. Shotwell	Richmond.
Reynolds	J. M. Lowery	Centerville	T. W. Chilton	Corridon.
Saline	D. C. Gore	Marshall	D. F. Bell	Marshall.
St. Clair	W. Cline	Appleton City	E. D. Miles	Osceola.
St. Louis	B. M. Hypes	2005 Victor St	T. A. Hopkins	Century Bldg.
St. Louis Co	H. G. Wyer	Kirkwood	H. T. Randle	Clayton.
Schuyler	J. T. Jones	Queen City	H. E. Gerwig	Downing.
Scotland	W. E. Alexander	Memphis	O. F. Pile	Memphis.
Shelby	Wm. Carson	Shelbyville	L. W. Dallas	Hunnewell.
Stoddard	D. R. Corbin	Bloomfield	Jno. Ashley	Bloomfield.
Sullivan	J. C. Kissinger	Milan	G. S. Milnes	Milan.
Washington	J. A. Eaton	Belgrade	W. S. Smith	Bellgrade.
Wayne	L. M. Pettit	Greenville	I. N. Barnett	Piedmont.

MEETINGS OF COUNTY MEDICAL SOCIETIES.

County.	Date of Meeting.
Atchison	Quarterly. January, April, July, October.
Audrian	Monthly. First Monday.
Bates	Quarterly. Last Thursday in Feb., May, Aug. and Nov.
Boone	Monthly. First Monday.
Buchanan	Semi-Monthly. First and Third Friday.
Butler	Monthly
Caldwell	Quarterly. July, October, January, April.
Callaway	Monthly. Second Thursday.
Camden	Quarterly. January, April, July, October.
Carroll	Monthly. Second Tuesday.
Cass	Quarterly. First Tuesday of March, June, Sept., Dec.
Chariton	Monthly. Last Thursday.
Clark	Quarterly. First Mondays Feb., April, June, Aug., Oct., Dec.
Clay	Monthly. Last Monday.
Cole	Quarterly. Second Thursday of Jan., Apr., July, Oct.
Cooper	Monthly. First Tuesday.
Crawford	Quarterly. First Tuesday. Apr., July, Oct., Jan.
Current River	Quarterly. August, November, February, May.
Daviess	Monthly.
Grundy	Quarterly. July, October, January, April.
Henry	Monthly. Second Tuesday.
Holt	Monthly.
Howard	Monthly. Third Tuesday.
Howell	First Thursday of Dec., Feb., Apr., June, Aug., Oct.
Iron	Monthly. First Saturday.
Jackson	Semi-Monthly. Second and Fourth Thursdays.
Jasper	Semi-Monthly. First and Third Mondays.
Johnson	Quarterly. June, September, December, March.
John T. Hodgen	Quarterly. October, January, April, July.
Laclede	Semi-Annually. First Mondays May and November.
Linn	Quarterly. October. January, April, July.
Livingston	Monthly. Second Thursday.
McDonald	Monthly. First Wednesday.
McDowell District	Semi-Annually. Fourth Thursday in Oct. and Apr.
Macon	Monthly. On or before full moon, Tuesday, 10 a. m.
Madison	Monthly.
Maries	Quarterly. First Thursday of Feb., May, Aug., Nov.
Marion	Monthly. First Friday.
Mercer	Monthly. Second Thursday.
Miller	Quarterly. First Thursday. March, June, Sept., Dec.
Mississippi	Monthly. First Monday.
Moniteau	Quarterly. March, June, September, December.
Monroe	Quarterly. First Tuesday of April, July, October, Jan.
Morgan	Quarterly. First Wed. of March, June, Sept., Dec.
Newton	Monthly.
Nodaway	Monthly. Second Tuesday.
Pettis	Monthly.
Phelps	Quarterly. March, June, September, December.
Platte	Monthly. First Wednesday.
Putnam	Monthly. First Wednesday.
Ralls	Quarterly. January, April, July and October.
Randolph	Monthly.
Ray	Monthly. Third Wednesday.
Reynolds	Quarterly. January, March, June, October.
Saline	Monthly. Second Tuesday.
St. Clair	Quarterly. Second Tues, of March, June, Sept., Dec.
St. Louis	Weekly. Saturdays.
St. Louis County	Monthly. Second Wednesday.
Schuyler	Semi-Monthly. July and December.
Scotland	Monthly. Second Tuesday.
Shelby	Quarterly. June, September, December, March.
Stoddard	First Wednesday in March, June, Sept. and Dec.
Sullivan	Monthly.
Washington	
Wayne	Monthly.

It is believed the information in this table is correct to date of going to press. Officers are requested to notify us of any errors or required changes. For further information concerning any Society, address the Secretary.

AMERICAN MEDICAL ASSOCIATION

Next Annual Meeting at Portland, Oregon, July 11th to 14th, 1905.

President-Elect: LOUIS S. McMURTRY, Louisville, Ky.
President: JOHN H. MUSSER, Philadelphia, Pa.
First Vice-President: EDWARD JACKSON, Denver, Colo.
Second Vice-President: JAMES HALL BELL, San Antonio, Texas.
Third Vice-President: F. C. SHATTUCK, Boston, Mass.
Fourth Vice-President: B. C. PENNINGTON, Atlantic City, N. J.
Secretary and Editor: GEORGE H. SIMMONS, 103 Dearborn Ave., Chicago.
Treasurer: FRANK BILLINGS, Chicago.

MISSOURI STATE MEDICAL ASSOCIATION.

Next Annual Meeting, Excelsior Springs, May 16, 17 and 18, 1905.

President: JABEZ N. JACKSON, Kansas City.
Vice-Presidents:
S. M. BROWN, Monroe City; H. W. LATHAM, Latham; T. M. POTTER, St. Joseph; W. S. THOMPSON, Armstrong; J C. ROGERS, Kansas City.
Secretary: C. M. NICHOLSON, St. Louis.
Assistant Secretary: E. J. GOODWIN, St. Louis.
Treasurer: J. FRANKLIN WELCH, Salisbury.

STANDING COMMITTEES.

Committee on Scientific Work:
C. M. NICHOLSON, Chairman; J. N. FRANKENBURGER and M. P. OVERHOLSER.
Publication Committee:
C. M. NICHOLSON, Chairman; C. LESTER HALL, WOODSON MOSS, ROBERT T. SLOAN, F. J. LUTZ, M. P. OVERHOLSER and L. A. TODD.
Committee on Public Policy and Legislation:
J. N. JACKSON, Chairman; C. M. NICHOLSON, HERMAN E. PEARSE, FRANK J. LUTZ and TINSLEY BROWN.
Committee on Medical Education:
C. M. JACKSON, FRANK HALL and T. C. WITHERSPOON.
Committee on Arrangements:
T. N. BOGART, Chairman; J. T. RICE, Secretary; I. J. JONES, F. H. MATTHEWS, J. M. ALLEN, J. H. ROTHWELL, GALVIN ATKINS, J. J. RICE, W. L. WYSONG and ERNEST LOWREY.

COUNCILLOR DISTRICTS AND LIST OF UNORGANIZED COUNTIES.

First District.—F. B. HILLER; Adair, Knox, Lewis.
Second District.—J. B. BRUMMALL; solidly organized.
Third District.—E. H. MILLER; Clinton, DeKalb, Gentry, Harrison, Worth.
Fourth District.—C. H. WALLACE; Andrew.
Fifth District.—L. W. DALLAS; solidly organized.
Sixth District.—WOODSON MOSS; Montgomery, Warren and Pike.
Seventh District.—W. B. DORSETT; St. Charles, Lincoln.
Eighth District.—F. J. LUTZ; Franklin, Gasconade.
Ninth District.—B. M. HYPES; Cape Girardeau.
Tenth District.—J. J. NORWINE; Scott, New Madrid, Bollinger, Dunklin, Center, Ripley, Jefferson, Francois.
Eleventh District.—W. S. ALLEE; Osage.
Twelfth District.—R. D. HAIRE; Benton, Lafayette.
Thirteenth District.—M. P. OVERHOLSER; solidly organized.
Fourteenth District.—A. R. SNYDER; Berry, Lawrence, Dade, Barton, Cedar, Vernon.
Fifteenth District.—Hickory, Stone, Taney, Greene, Christian, Dallas, Polk.
Sixteenth District.—R. L. JOHNSON; Pulaski, Webster, Ozark, Dent, Texas, Wright, Douglas, Oregon.